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UNIVERSITY OF ALBERTA

COLLABORATIVE INSTRUCTIONAL DESIGN: A TRANSFORMATIVE SOCIAL ACTIVITY

BY

KATY CAMPBELL

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A thesis submitted to the faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of DOCTOR OF PHILOSOPHY.

DEPARTMENT OF ELEMENTARY EDUCATION

Edmonton, Alberta

FALL, 1994

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ISBN 0-315-95157-5

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DEGREE: Doctor of Philosophy

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July 7, 1994

What the artist and the creative scientist have in common is that both are makers of form, one qualitative, the other theoretical, who offer us images of the world. When the images are well-crafted they provide compelling schemata that capture both our attention and our allegiance. The forms we call art and science, rite and ritual, not only provide schemata through which we experience the world, they are also forms through which we represent it. We have a strong tendency, I think, to act as if they had a life independent of their makers ....

Elliot Eisner, 1988, p. 16.

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FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the faculty of Graduate Studies and Research for acceptance, a thesis entitled COLLABORATIVE INSTRUCTIONAL DESIGN: A TRANSFORMATIVE SOCIAL ACTIVITY submitted by KATY CAMPBELL in partial fulfillment of the requirements for the degree of DOCTOR OF PHILOSOPHY.

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DEDICATION

This story of the making of a videodisc is dedicated to two people who invited me into their collaborative process more than a decade ago.

Dr. Douglas V. Parker, *Professor Emeritus*, envisioned a model of teacher education that would include real simulated classroom experiences. He wanted to bring the public school classroom into the University classroom where theory could meet practice safely, and sympathetically. Accordingly, he created SIMCLASS, an early version of the interactive videodisc-based classroom. Dr. Parker was my teacher, advisor, and friend through three undergraduate and graduate programs--his stories of teaching were models of praxis that I and hundreds of others embodied when we had classrooms of our own. He was one of the few professors I can remember who invited us in to his inner life as a teacher, and in so doing created an extended family with a collective memory: How it is to teach *Francais, langue seconde*. His inner life entangled with my own and those of our teaching families to help make the Story of the Questioning Disc (QDisc).

I met David Mappin for the first time in 1982: He came to examine my first try at extending the scenarios on the second SIMCLASS videodisc, "Classroom Discipline: A Simulation Approach". The imagined video reactions to the teacher's first decision were sketched on long sheets of newsprint taped to the walls in Doug Parker's classroom. I anxiously followed along behind him as he traced my logic with one finger. After a few minutes he began raising questions by sharing stories of his own schooling experiences in rural and Southern Alberta, where dusty classrooms of bored farm boys ate young women teachers for breakfast. We laughed at some stories and winced at others, but they all became blended into the stories of teaching and learning told for us by our school families and embodied on the videodisc. The next fall, David gave me a temporary job in the Instructional Technology Centre and became my mentor and champion for the next ten years, opening up unimagined possibilities and space for thinking about teaching--how we do it and how it might be done--that led inevitably to the making of the QDisc.

Knowing-about different things, living lives in schools that never intersected--yet, together, able to *imagine* something totally new and bring it to life with a baby technology .... The intellectual vision and personal and professional generosity of these two men has had the most profound impact on my life.

Thanks, you two, from western New York!

ABSTRACT

This is the story of four teachers, connected by lives lived in teaching families, living their connections in creative and generative ways as they came together in an inter-institutionally defined collaborative project to construct the instructional story of questioning. This story tells of the conception and unfolding of a collaborative project to design an interactive videodisc for preservice and inservice teachers,"Do I Ask Effective Questions? or, I Can Hardly Wait to Hear What I'll Ask Next!" with unexpected consequences for its collaborators--enduring relations that in their living continue to be transformational. Developing and sharing these connections in constant, collaborative conversation helped the instructional plan to be narrated, and the instructional design process to be defined.

This set of papers explores the conversation-based instructional design process, situating it in an interactive social milieu framed by the relational obligations and tensionalities inherent in Noddings' *caring regard* and Lyons' *nested knowing*. The notion of nested knowing that was surfaced in constant collaborative conversation, reveals the personal practical knowledge of the design team members, which became both the instructional content of the videodisc and the data set for the parallel research process.

The personal practical knowledge (Connelly & Clandinin, 1988) of the instructional designer has not been authorized by traditional blueprint instructional design models which are rational and systematic. This study seeks not only to legitimate personal practical knowledge as the basis for instructional design practice, but to celebrate the design process as one of the telling and sharing of lives. In this sense, the collaborative instructional design process is one of the sustaining of family.

PREFACE

This dissertation is a collection of stories about the making of a videodisc for preservice and inservice teacher education, a videodisc that was conceived as an interinstitutional collaborative project between the Faculty of Education, University of Alberta, and the Instructional Processes group from Edmonton Public Schools.

The examination of this project is presented in *paper format* because, as in the design process, the research methodology was a socially interactive process of sustained collaborative conversations in which narrative threads emerged and were woven back into the tapestry of the Making of the QDisc.

As in much narrative work, it is more accurate to speak of many stories that are blended and retold than of one authentic version. With each conversation we restoried the instructional design process and in these accounts came to new, or deeper understandings of the power of narrative to transform practice. A paper format dissertation in which many stories are told, and reworked into a tapestry of the whole, is a more faithful accounting of both the project and the reflexivity of its exploration. Accordingly, the reader is invited into the story at any point in the narrative, constructing her <u>o</u>wn personal understanding by reading forward and backward in time.

ACKNOWLEDGEMENTS

I have been transformed by the story of the instructional design process told in this dissertation, or more truly by the sharing of lives with my QDisc family: Al Olson, Roy Leady, and Louise Grisdale. The time that we were together as an instructional design team marks one of the most personally and professionally satisfying times of my life. This project has defined my instructional design practice ever since--the doing of work by constant, collaborative conversation. As Roy pointed out, we can lead separate lives for years, but when we come back together it's like the next day!

I have also been transformed by the enviable privilege of working with two of the most exciting theorists in teacher education of the past several decades: Jean Clandinin of the University of Alberta, and Richard Butt of the University of Lethbridge. I can honestly say that I will never again think of instructional planning and teaching the way I did before coming into contact with these two individuals--narrative and life story, teaching images in action, have completely informed my own praxis as a teacher and a teacher educator in my new career at SUNY.

As daughters and granddaughters of teachers, growing up in a household framed by the rhythms of teaching, my sisters and I, not surprisingly, live out our own teaching stories as feminists, in Lori's case as an adult educator in the Northwest Territories, and in Sue's case as an Assistant Professor of Philosophy at Dalhousie University. Their voices are mingled with mine in this narrative--teaching as political act, as a morally framed activity of caring.

Each member of my committee has contributed significantly to my transformation from chooser of blueprint to active maker of meaning: Margaret Haughey, someone who you want to think well of you, has been unfailingly supportive in my ongoing career development and challenging in my evolving thinking about instructional design; Dianne Oberg who has been a model of collaborative planning; Pat Rafferty who introduced me to the ethnographic way of thinking in my all-time favorite graduate course; and Andrea Borys who embodies a feminist ethic of mentoring. In this group I also count Sharon Jamieson, my third "sister", who encouraged me to go for it and was there supporting me through all the tensionalities of the last five years; and Helen Ilott, who I first came to know as the mother of a student in my former life as a French teacher, and who was the generous first advisor in my doctoral program.

Finally, I must thank my daughter, Courtney, for being so good about letting me write in every free moment this year.

To all these characters in my story, thanks for being part of the narrative unity of my life.

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INTRODUCTION

COLLABORATIVE INSTRUCTIONAL DESIGN:

A TRANSFORMATIVE SOCIAL ACTIVITY

> Noddings ... drew attention to the ways we situate ourselves in relation to the persons with whom we work, to the ways in which we practice in a collaborative way, and to the ways all participants model, in their practices, a valuing and confirmation of each other. What Hogan and Noddings highlighted is the necessity of time, relationship, space, and voice in establishing the collaborative relationship, a relationship in which both researchers and practitioners have voice.
>
> Connelly & Clandinin, 1990, p. 4.

On the surface of it, these five papers are a story of the design and production of a Level II interactive videodisc on questioning strategies in the classroom. But on another level, it is a story of how four teachers became intimately connected to each other through a collaborative process, a process that binds them together socially, giving everyone a space and a voice.

This is a story of a courtship, of an orchestration of relations, in which stories became nested within stories to create the story of The Making of the QDisc. The telling of stories is a purposeful way of connecting to the intimate lives of their authors. These lives, revealed through socially-intimate conversations, contain the stories of asking questions in the classroom. These questioning stories became the content and the plan of the videodisc, the sharing of them the way that the plan emerged. The telling of the design story as a research story is also a process of honoring and sustaining this family of the questioning disc (QDisc)-makers. The telling of the story of the QDisc-makers is also the telling of the story of collaborative instructional design.

The story of the collaborative instructional design process is likewise nested with the instructional story told by the QDisc. The instructional story is itself reflexive of the stories of the QDisc-makers who are makers of questions, askers of questions, and tellers of stories about the rhythms of questions in classrooms. And finally, the telling of the stories of the QDisc-makers is at the same time the story of maintaining the ties of this teaching family through distance and time and experience.

This is the story of four teachers, connected by lives lived in teaching families--

growing up with teaching pedigrees, choosing, themselves, to teach, and nesting into new teaching families with old and familiar ties--living their connections in creative and generative ways as they came together in an inter-institutionally defined collaborative project to construct the instructional story of questioning. This story tells of the conception and unfolding of a collaborative project to design an interactive videodisc for preservice and inservice teachers, with unexpected consequences for its collaborators--enduring relations that in their living continue to be transformational. Developing and sharing these connections in constant, collaborative conversation helped the instructional plan to be narrated, the instructional design process to be defined.

The Members of the QDisc Family

Al is a senior professor in the Faculty of Education, a man who resisted collaboration by institutional mandate, but who naturally sought out and thrived in collaborative groups. A reader of Michael Apple, a University Discipline Officer who feels strongly about involving students in the governance of their community, Al is a deeply thoughtful man who consistently acts in a caring, moral way in a professional context (the academy) that, in his experience, often demands allegiance to dualistic structures of thinking and acting. Al came to the QDisc project typically full of curiosity about the rational instructional design process, remembering this as a time when "we were really on the bubble" (Al, 1993, May 20).

Roy came to the project status-poor, a graduate student on sabbatical leave from teaching. Of us all, Roy was most competent in creativity and group process, yet most comfortable working with the technical aspects of television production. After the project Roy resumed his teaching life in administrative leadership, but continues to work in curriculum development, because teachers "need someone to support them" (Roy, 1993, May 20).

Louise is a principal who, more and more, seeks opportunities to work collaboratively with teachers, administrators, community members, and colleagues in teacher education. At the time of the QDisc project she was a consultant in a professional development program based on Joyce and Shower's (1988) peer-coaching model. Consistently curious like Al, Louise saw her professional commitment to the collaborative process as a continuing personal commitment to everyone in it. She seeks different frames with which to understand this time, examining the process as a consultant, as a teacher, and as an administrator. Louise connects to others in her life through probing, intimate

conversation.

I am the narrator in this story. This dissertation is really my story of instructional design--how I have come to understand how I act as a collaborative planner in projects that were institutionally mandated and that framed my working life for ten years. In this story, in which no one is anonymous (least of all me), I am the subject of my own life. I believe that in examining my life and its connections to the lives of those with whom I plan, I author-ize tools of instructional design that are denied in theoretical models of rational design. These tools are the tools of personal connection; that is, language, humor, and social context. As in a family, we built patterns of language, of discourse, that defined us and kept us intimately connected through time and distance. This spoken language, this conversation, was the content and process of design, the means through which we shared what we each knew and collaboratively constructed new meanings of questioning.

Understanding My Own Praxis

The times I liked teaching best were when I was planning to teach. Both teaching assignments in my short public school teaching career involved resource problem-solving, identification or creation of unusual materials and events, and the planning and implementation of new curriculum and activities.

I was fortunate to have, and was transformed by having, the experience of collaborative curriculum planning in the implementation years of Edmonton Public School Board's Extended French pilot program, an intensive second language program for which existing curriculum needed to be substantially adapted. Intimate conversation, negotiation, and creative problem-solving were personal and working styles that presaged my entry into the instructional design field.

My formal introduction to this field was a result of entering a Master's program in Curriculum and Instruction in Secondary Education at the University of Alberta, for which Dr. Douglas Parker was my supervisor. Newly excited by the possibilities of using microcomputers in the French classroom, he encouraged me to investigate this new technology in my own program and to explore other media-based approaches to teaching a second language. At one point, he demonstrated an early interactive videodisc: A personal epiphany! I immediately enrolled in television and instructional design courses and began working on a team with him and David Mappin, Director of the Instructional Technology Centre, to field-test the Faculty's first videodisc, "The Golden Touch of Midas".

As a team member on SIMCLASS II, later to be called "Classroom Discipline: A

Simulation Approach", my design contributions were very closely based on my personal experiences in the classroom. The disc contains four scenarios, each based on an actual problem in classroom management. After the opening video sequence which sets the problem the student, in the role of the classroom teacher, is confronted with a series of choices for action, each of which has a related sequence of choices. The scenario unfolds until all the possibilities are revealed and an evaluative summary of the student's choices is provided. Each menu choice on that disc was based on a personal action. I had made all of those mistakes and had all of those successes. With little formal preparation in instructional design practice, I was accepted as a design team member. I told how event would fold into event on the videodisc, and the plan was given authority by flowcharts, script pages, videotapes, and computer code.

During subsequent projects involving teams of faculty members and teachers, I learned more about design by doing it as I studied the prevailing theories and models in the field. No one approach seemed to reflect what I was coming to believe was an essential element in the process--the instructional designer. Nor did any describe the process of design as I was experiencing it. Since I was supposed to be the expert, I resolved this personal dilemma by referring retrospectively to the theory or model which best seemed to fit the finished design.

As I worried about the problem of professional expertise, I took a course from Richard Butt at the University of Lethbridge and, at the same time, began working with Jean Clandinin at the University of Alberta. I realized that a melding of the work on teachers' autobiographies with that on teachers' personal practical knowledge gave me a key to understanding my own planning practices--growing up as the daughter of a teacher, my own schooling experiences in that context, the daunting task of creating new resources during my teaching years, the videodisc development with Douglas Parker and David Mappin--all contributed to my genesis as an instructional designer. Since all my design projects took place in the social context of a collaborative team, I became committed to a praxis that involved the sharing and blending of personal stories about teaching and about life, in context-bound, "constant collaborative conversation" (Streibel, 1991, p. 128).

The sharing of teaching stories, the creation of the content knowledge for the instructional plan, was a transformative social activity (Wexler, 1982). Britzman (1991) asserts that voice permits participation in the social world: The conversation in instructional design is a social activity in that the discursive process involves the "social negotiation necessary for the production and interpretation of knowledge" (Britzman, 1991, p. 38); and

it is transformative because "life review and the act of telling one's story (are) active components in the process of transformation" (Benmayor, 1991, p. 164).

An Alternative Process of Instructional Design

In this study, then, I propose an alternative instructional design praxis grounded in the tenets of narrative discourse; that is, that the process of collaborative instructional design:

- is a process of negotiating meaning through the telling of stories;
- uses socially negotiated meaning as content;
- is a social activity;
- is transformative for all involved in the construction of the instructional story;
- permits me to construct it as a feminist model, in that the process legitimates participants as the subjects of their own lives;
- and results in the enduring relational obligations of the family, that is, the moral obligations of care and responsibility for the others.

Negotiating Meaning Through the Telling of Stories

In this study, I characterize the conversation-based instructional design process as a metaphor which describes both the process of constructing instructional meaning, that is, the way that we designed; and the content of the story of questioning, that is, the story of the design of the videodisc "Do I Ask Effective Questions?". Conversation was the interactive social activity in which we engaged, privately and reflexively, with our own life stories; and publicly with each other's tellings of their lives. This was a reflexive process in that design conversations were internalized conversations made public and accessible (Bruffee, 1984). I include in this public telling the conversations with teacher/exemplars and with others in the institutions. Conversation revealed the teacher lore (Schubert, 1991), or "beliefs, values and images that guide teachers' lives" (p. 207), that were at the heart of how each of us understood being in the classroom as question-askers. After Dewey, this conversation is the making of curriculum, or in this model the design of instruction. In the collaborative probing of the meaning of our stories we were able to draw upon the collective knowledge that "gives meaning and direction" (Schubert, 1991, p. 210) to the experience of questioning in the classroom.

Traditional, technical models of instructional design may also use language as a tool with which to probe the knowledge of assumed experts. In this view, however, language

is an instrument of power used on informants (subject matter specialists) to extract what they know in forms that can exist independently of the personal meaning with which these individuals would have imbued them. This is a violent image to me, because this process of decontextualization obliterates the personhood of the knower. On the other hand, conversation is a mutual, reciprocal process authorizing a "breadth of subject matter and variety of voices compatible with it" (Florio-Ruane, 1991, p. 239) and, instead of imposing order, welcomes the twists and turns of meaning and understanding that define its equity of form and content.

In addition, conversation is the research process by which we came to understand the phenomenon of the QDisc project. During the design phase, we came together to share stories of our reflexive knowing-about the process and the experienced transformations in our lives and our praxis. The conversation was without boundaries--humorous, resistant to institutional accountability, and ultimately transformative--and we again came away with new understandings about the QDisc project and a mutually constructed, plurivocal story of the making of curriculum. These ideas, the characterization of conversation as design process and design content, are explored in paper four, "Instructional Design as Collaborative Conversation".

Using Socially Negotiated Meaning as Content

How do many stories, many voices, many meanings, become the story of questions in the classroom, the story of the QDisc? The process of constant, collaborative conversation is a process of negotiation, of reflection-in-action (Schon, 1987), which engages the design team members in a dialogue with the phenomena of their lives. This is a process of finding the spaces where shared ownership of meaning can be claimed, where conversation requires each of us to clarify and authenticate for ourselves and for each other our "motives, authentic experiences, and common meanings" (Aoki, 1991, p. 73).

This negotiation, which is achieved in the public arena of conversation, does not result in a single interpretation of reality. That is not its intent. Rather, the multiplicity of meanings embodied in the telling of our stories is merged imaginatively into collaborative stories with many characters, many plots, many nests of meaning. The telling of stories did not result in the pulling apart, or isolation of strands of narrative meaning, but in the re-weaving of whole strands into a new product, the story, the instructional design of the videodisc.

What is central to a study of the making of the plan, then, are the problems of how conversation let the designers "produce and reproduce meanings and myths about education

through their theories, practices, routines, discourses, contexts, and reflections on educational life" (Britzman, 1991, p. 15); and how these shared meanings and understandings of teaching life became the story of questioning on the videodisc. Collaborative conversation as instructional design process is thus inseparable from blended stories as content. Both clientele (teachers) and purpose (to understand the questioning process) for the instructional videodisc are intimately related to decisions about presentation, i.e. the instructional plan. Florio-Ruane (1991) makes this point in her discussion of the purposes and kinds of writing. The instructional videodisc is meant to be interactive, that is, it compels the learner to actively construct meaning from it. Therefore, the content and plan that is exophoric in nature "evokes in the (user) who shares its context images of his or her own experience that resonate with those drawn on by the author .... Both (designer and user) participate in the creation of such a text's meaning" (p. 247).

The creation of new, collaborative stories as the content of the instructional plan is explored in papers two, "The Collaborative Milieu of Instructional Design", and four, "Instructional Design as Collaborative Conversation".

Collaborative Instructional Design is a Social Activity

Various persons taking turns at talking--this is the "web of expressive social activity" (Borland, 1991, p. 63) that situates the designers at the center of a creative, dialectical process in which life experiences define the community of knowers. Elements of this knowledge community include the sharing of a multiplicity of meanings, values, imaginations, and histories. Sharing through oral personal narratives occurs naturally within conversation: This meeting in conversation is the "quintessential human act, the social moment wherein we establish ties, and where we have authentic recognition of the other" (Brody & Witherell, 1991, p. 263). This social moment is recreated each time two or more of the design team members come together in conversation, because the community now shares a social history which I have come to think of as reflective of a family structure.

Elements of this social structure are explored in the first and second papers, "The Instructional Designer as Constructivist: An Anarchist's View", and "The Collaborative Milieu of Instructional Design"; and the tensions that can arise and impact on such a community are described in paper five, "Tensionalities in the Collaborative Process: Restorying the Making of the QDisc".

Collaborative Instructional Design is Transformative

The collaborative conversation is a process of authoring, but I go beyond the idea

of authoring as the making of the plan, to the notion of authoring my own life through the making of the plan. It is in this sense that the conversation, the telling of who we are, the sharing and blending of meaning and values, is transformative for all the authors, the makers of the QDisc. Tappan and Mikel-Brown (1991) argue that this process, this authoring of our lives, is a moral activity because it "influences how we think, how we feel, and what we do" (p. 181). Further, reflective conversation as authorship is developmental, or transformative in that it "not only expresses itself through narrative, it also develops through narrative ... (and) such reflection also entails learning ...." (p. 182). The telling of stories as instructional design praxis, or discourse as instructional design praxis, is a cognitive activity requiring reorganization, reassessment, and realignment of life experience (Brody, 1991), and in the sharing is both personally and publicly transformative.

These dual purposes of collaborative conversation, personal and public transformation of meaning, are explored in the third paper, "Collaboratively Transforming Personal Practical Knowledge into the Instructional Plan".

Collaborative Instructional Design is a Feminist Construct

The instructional design process should be collaborative and socially constructed; that is, it should be based on conversation, negotiation, reflection, intuition, and embodied knowledge. Accepting that embodied knowing is the basis of praxis, I must make room in the instructional design process for the knowing expressed in the voices of all other design partners. Each design act is predicated on the personal/practical/professional knowledge of each design partner, and both the design process and the product will provide an account of our constant, blended, collaborative conversations. Authorizing the voices that tell these stories is a collaborative and ultimately a feminist practice.

Why a feminist practice? Because a socially negotiated process grounded in the intimate sharing of narratives legitimizes ways of knowing not imbricated in the canonical power structures of rational, technical, and finally paternalistic models of knowing and doing. After Bakhtin (1986), these models of authoritative discourse are the word of the father, invoked in systematic models of instructional design and valuing knowledge as an entity to be discovered and controlled. In contrast, a conversation makes room for multiple value systems and is plurivocal, and reflects the "Principles Behind Feminist Praxis" elucidated by Hollingsworth (1991), and by Belenky et al. (1986). In this view, the process values emotions, intuitive leaps and personal experiences as the basis of knowledge, and encourages continuous celebration of our discoveries, changes, and

rearrangements of power through new narratives. Because conversation is so public and accessible, it masks the power question, "Whose account counts in this story?" because in its give and take it blends all accounts.

These accounts are represented in the stories told in papers three through five, "Instructional Design as Collaborative Conversation", "Collaboratively Transforming Personal Practical Knowledge into the Instructional Plan", and "Tensionalities in the Collaborative Process: Restorying the Making of the QDisc".

The Enduring Relational Obligations of the Family

"Making room" is characteristic of a feminist stance in which fidelity to others is an overarching concern (Noddings, 1986). The story of the making of the QDisc is fundamentally concerned with a community of story-tellers who practiced valuing and confirming the narratives of each other; building an enduring community of caring. Each conversation is a "return to community" (Benmayor, 1991, p. 166), a place where we are deeply engaged with each other's lives. This community became a haven where role definitions were fluid, where power structures were changed and rearranged through new narratives.

This process became a marker event for us all. In a real sense we count life events and construct new narratives from that time. This membership in a caring community, means that we honor each other and our ways of knowing whether together or apart. The notion of family goes beyond community, however, in the depth of intimacy attained by entering into each others' lives and forging bonds that endure through time and space as we come together again to make a new story, the story of the making of the QDisc. The relational obligations of the collaborative process are explored in paper three, "Collaboratively Transforming Knowledge into the Instructional Plan", paper four, "Instructional Design as Collaborative Conversation", and paper five, "Tensionalities in the Collaborative Process: Restorying the Making of the QDisc".

The Research Process

This project was selected on substantive grounds, that is, what counts to me in this account is the personal. In this sense, and in the ways suggested by Tappan and Mikel-Brown (1991), the process is deeply moral and developmental as I continue to author my own life.

But more than that, the opportunity to construct a "second-level narrative" that in its retelling shapes the first (Borland, 1991, p. 63), is an opportunity to "re-present" the

voices of the members of my QDisc family (Britzman, 1991, p. 13) in an act of honoring and fidelity. In a way it is a hymn to those who, through the collaborative process, will now be enduring characters in new narratives of experience. Given this relational obligation, there is no other way to tell the story of the QDisc but through the voices of its makers, the collaborative design partners Roy, Al, Louise, and myself.

Because this was a revisiting of the design process, I felt strongly that the research methodology had to parallel the model of collaborative conversation. A narrative account is a process that is cognitively-based, that is, restorying the design process helps us make sense of our experiences and shares with others how we experience the world. In other words, life narratives are the reflexive context for making meaning of life experience. We started the QDisc project by telling life narratives to each other. We designed by telling stories of teaching, and by reconstructing the stories of life in classrooms that were recorded on videotape. In this way, we constructed a tapestry of questioning, and of classroom life, that was re-storied for collaboratively authored papers, conference presentations, and inservice workshops. We came together again over six afternoons to re-story the process of design and, finally, the story is told again in the narrative account that is this dissertation. In other words, the story is a methodological device and the method itself (Connelly & Clandinin, 1990). It is also the data--flowcharts, content narratives, journal entries, papers and transcripts, and the videodisc itself--and the form in which it is reported.

In this story, narrative inquiry is concerned with the community of story-tellers who opened up for examination stories of their own personal/professional lives to tell the story of questioning. The research process paralleled this narrative design process and recreated the relationship of connected knowing underlying the conversation. In the research conversations, as in the design conversations, we inserted ourselves into each others' stories in the believing game (Connelly and Clandinin, 1990); we burrowed into each others' nests of knowing in the creation of a caring, collaborative community in which all accounts counted.

Common experience, and experience made common, was the focus of this narrative inquiry. The mutual construction of the research relationship was a retrospective modelling of the mutual construction of the caring community of knowers. Time and space was made for the reflective conversation that defined the process and the content of the videodisc, and the understanding of that process. We created further meaning by retrospective reflection and by the blending of the subsequent knowing in multiple forms of

representation. As I write, I listen again to the voices on tape, I visualize the conversation. The spoken words invoke again the time and place of the conversation, much as music brings to consciousness a remembered event. In this way, the writing focuses on affective qualities of the conversation, timbre of voice, silences, laughter; murmurs of agreement. I write forward and backwards in time, I cannot remember the exact moment I began to construct the story of the making of the QDisc.

Of course, "re-presenting the voices of others" implies an interpretive effort fraught with danger. The retelling of another's story, even a retelling that is mutually reconstructed as I hope this one was, is "always selective, partial, and in tension" (Britzman, 1991, p. 13). The measuring stick for this account, then, must be the connectedness felt by this community of knowers, a connectedness that will itself measure my fidelity. I am the narrator, this is ultimately my story of instructional design, and so I take full responsibility for what I have selected to tell.

In Conclusion

The story of the making of the QDisc is the story of the tension between the authoritative discourse of instructional design and the internally persuasive discourse of subversion. It is the story of the rejection of received and static knowledge and the celebration of alternative ways of knowing and "ever newer ways to mean" (Britzman, 1991, p. 21). It is the story of breaking the sanctioned rules, the sacred myths of the discourse of technical rationality (Schon, 1983) and celebrating the ambiguity of words, the play of meanings in conversation. Collaborative conversation as instructional design praxis is the internally persuasive discourse that is socially negotiated and constructed through the telling and retelling, living and reliving of teaching stories (Connelly and Clandinin, 1990). In this dissertation these stories are told in five papers as narrative strands or episodes that are woven together in the concluding paper, "Two Metaphors of Instructional Design". This format is narrative in conception as the reader is invited into a story that is told forward and backwards in time and place: the reader is invited to organize the story into a personally meaningful scheme.

This is a story, and the story of the story, the telling of which is a fundamental human activity. I tell it this way because "narrative might well be considered a solution to a problem of general human concern, namely, the problem of how to translate <u>knowing</u> into <u>telling</u>" (White, 1981, p. 1).

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PAPER ONE

THE INSTRUCTIONAL DESIGNER AS CONSTRUCTIVIST: AN ANARCHIST'S VIEW

> The lived world must be seen as the structuring context for sense-making of any sort, even for scientific inquiry. To acknowledge this is to acknowledge the necessity to ground scientific discoveries in experience, or in what Michael Polyani called "personal knowledge".... It must become clear again that reflection is not only rooted in experience, its entire purpose is to inform and clarify experience--or the lived world. If we add to this a conceived possibility of remaining in touch with our perceptual backgrounds and thus remaining present to ourselves, we may be better able to ward off the depredations of technique.
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> Maxine Greene, 1978, p.17.

In the early 1980's the Audiovisual Media Centre (AVMC) in the Faculty of Education at the University of Alberta evolved into the Instructional Technology Centre (the Centre) under the leadership of David A. Mappin, continuing a process of reorientation begun in the 1960's as an instructional support service with an instructional design emphasis (Jamieson & Norton, 1992). The AVMC had previously provided technical and learning resource support, production services, and maintenance for the Faculty's hardware inventory. Now it became apparent that to effectively integrate new instructional systems, such as interactive videodiscs in the preservice program, more would be required from the Centre than a technical/consultative role. Whereas previously, after an initial consultation with the Manager of Production Services, a faculty member could develop content, write a television script for a linear program, identify appropriate videotape sequences, and approve a final edit; the interactive formats becoming available required a different, team-based, interactive approach to planning (see, for example, DeBloois, 1982). The client could no longer remain aloof from the process, but was integrally involved in the decision-making as a content expert. New members gained parity in the process, specialized technologists such as the graphics artist, the computer programmer, and the television producer. And now, replacing the consultant at the beginning of a project was an individual who understood and could integrate all of these elements and expertise into a cohesive plan, the instructional designer.

The Dilemma of a Designer

Since the Centre was involved in instructional planning, in addition to production and technical consultation, the cadre of four individuals now called instructional designers felt it necessary to be legitimized as experts in the theory and practice of instructional design. Two of the four had taught in the school systems: They doubted that they had little background theory or practice relevant to the task at hand. What seemed to be necessary for credibility was a program of reading, studying and application of instructional design theories and models. Individually and together the four instructional designers studied and shared references and models, and eventually contributed to a formal documentation of the Centre's adaptation of prevailing approaches, the Systematic Design of Instruction (1987)[1]. Care was taken, however, to ensure that aspects of the model that were shared with faculty members were transparent, that is, translated by the instructional designer into working practice. For example, instructional design language, such as "task analysis", "entry behaviors", and "formative evaluation" was replaced by questions such as, "What can a videodisc provide that classroom experience cannot? What courses have these students already taken? How is this aspect of the course being taught now?" This was important as members of curriculum and instruction departments were interested in working with us on instructional innovations such as interactive videodisc-based simulations in classroom management, but rejected overtly mechanistic systems models (Mappin & Campbell-Bonar, 1989).

Having contributed to a working model of systematic instructional design, having participated as a design team member on the first interactive videodisc in the Effective Teaching series produced for the Department of Secondary Education (Engel and Campbell-Bonar, 1988), and being prepared with a bulky file of readings in the field, I felt ready to provide the instructional design expertise, as lead designer, on my first interactive videodisc project. The core team was identified: an instructional designer from the Centre (me), a co-designer/content expert (a faculty member in the department, himself an expert in instructional television), a project manager (the Director of the Centre), and a programmer/analyst (who was also the television producer). In this case, because the content expert was also familiar with existing instructional design models, transparency in

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1 The Instructional Technology Centre, under David Mappin's guidance, developed a working document in 1987 entitled "The Systematic Design of Instruction". This document was to provide a working model of instructional design practice for staff designers, and was to be referred to in the course of faculty-based instructional design projects.

working models was not an issue.

Meeting twice weekly, the faculty member, my design partner, and I accordingly prepared a careful task analysis, wrote a dozen learning objectives, conducted a literature review, and then ... were at a loss as to how to proceed. We consulted the models and checked off the completed steps (see, for example, Fleming & Levie, 1978). According to the models, we were then supposed to construct test items that would match content--a step that seemed inappropriate to a design with affective outcomes. We discussed at length the eventual implementation of the disc. We understood the case study concept. We met with other instructors/content experts to brainstorm case study ideas. We knew our constraints--one side of a Level II videodisc, an eight-month timeline, etc. But nowhere in any of the theories and models did we find out how to design this videodisc. Somehow I knew that my own teaching experience would contribute significantly, but there seemed to be no room in the theory for the designers' personal experiences or ways of knowing about teaching and learning. Each model or plan for instructional design referred to more or less invariable steps in a sequence which always began with some form of task analysis, but where to go from there?

Michael Streibel (1991) describes his awakening to the inadequacy of existing instructional design models:

> ... after years of trying to follow Gagne's theory of instructional design, I repeatedly found myself, as an instructional designer, making ad hoc decisions throughout the design and development process. At first, I attributed this discrepancy to my own inexperience as an instructional designer. Later, when I became more experienced, I attributed it to the incompleteness of instructional design theories .... Lately, however, I have begun to believe that the discrepancy between instructional design theories and instructional design practice will never be resolved because instructional design practice will always be a form of situated activity (I depend on the specific, concrete and unique circumstances of the project I am working on). Furthermore, I now believe instructional design theories will never specify my design practice at other than the most general level (p. 122).

Streibel's frustration with Gagne's theory and other instructional blueprints echoed my own in trying to adapt rule-based, scientific sequences of action to what, in my view, was essentially a creative, generative, holistic process of dialogue and negotiation. This process takes place over time as a conversation about lived experiences, about being with students in a social milieu, about teaching (and classroom management) as a morally-

framed activity (Noddings, 1986), and how that stance might be enacted as a case study of one student and her world[2].

Instructional Design is Context-Bound

For Streibel, and Lucy Suchman (1987), who writes about plans as situated activity, such face-to-face communication as takes place in design situations becomes the means through which actions in a unique situation for a unique learner are connected to larger personal and interpersonal interactions and, thereby, made mutually intelligible. In this model, a collaborative design process in which telling individual stories of teaching and of classroom management (for "Classroom Management: A Case Study Approach"), thus constructing a mutual story of participation in the lives of the classroom family as the basis on which decisions are made and products are produced, will always be a form of context-bound discourse embodying negotiation and reflective action.

Like Schon (1983), who views drawing and talking as design process, Suchman characterizes the design process as requiring constant collaborative conversation to prevent uncertainties and repair miscommunications. Streibel (1991) relates Suchman's work to phenomenolgical understanding of discourse in which experiences, shared knowledge structures, and interpretations are laid out on the design table:

> ... two people can only understand each other when they share the same symbolic representations about typical situations and appropriate actions .... The problematic aspect of the cognitivist point-of-view arises, because the lived experiences of two persons are not made up of identical representations. [Lucy] Suchman's (1987) argument here is ultimately based on an appeal to experience, because human beings have no privileged way of knowing whether an identical relationship exists between the cognitive representations of different people. Our phenomenological experience, on the other hand, tells us that our knowledge entails specific, contextual experience, and our actions proceed on the basis of context sensitive, embodied skills and not rationally constructed plans. (Streibel, 1991, p. 123).

For my instructional design partner and me, and others engaged in the design conversation, telling stories of our classroom experiences helped us come to a shared understanding of how the lives of different people (teachers, students, administrators, families) come together in the community of the classroom and how their daily living out of their stories might lead to the interactive nested knowing to which Lyons (1990) refers and

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2 For a description of the videodisc "Classroom Management: A Case Study Approach" see Engel & Campbell-Bonar, 1988.

on which caring, moral decisions for action are taken. For me, the design of a case study in classroom management had to reflect this stance towards classroom management as one aspect of the moral dimension to teaching. In essence, this shared sense-making formed the basis on which we could proceed with an instructional plan.

Design and Personal Practical Knowledge

In curriculum theory, a critical, interpretive understanding of instruction is exemplified by Joseph Schwab (1962, 1980) who describes four commonplaces of learning: the teacher, the student, the subject matter, and the milieu. I believe that Streibel and Suchman are describing an unacknowledged commonplace in instructional design theory and current practice--the designer's personal practical knowledge (Clandinin & Connelly, 1988) of the content and the context. The Centre's practice of bringing together collaborative design teams on projects utilizing interactive technologies, in which conversation is the basis of planning, particularly highlights the inadequacy of current design models which leave out the personal practical knowledge of the designers. Centre designers were unable (and, in my case, ultimately unwilling) to work "directly and cleanly with the linear models of instructional development which are represented in the textbooks" (Mappin & Campbell-Bonar, 1989, p. 6). In my projects, for example, design meetings revolved around framing of the interactive videodisc design through instructional experience (how can we help students develop a personal view/style of classroom management?) rather than the framing of the content through interactive videodisc technology (how can we represent classroom management as a series of learner choices leading to predetermined outcomes?). However, contrary to a view of instructional planning as constructed-knowing, instructional design theory in the past two decades has focused almost exclusively on the interaction between the learner and the product, characterizing the role of the instructional designer as nothing other than the chooser of the plan (Saettler, 1990; Bernard & Lundgren-Cayrol, 1992).

For me, this poor fit between theory and practice has always been a design dilemma.

Instructional Design Theory and Practice

Although we tend to equate technology with machines, a technology of instruction was sought long before the Industrial Revolution of the 19th century. Currently, anthropological thinking describes "techne" as the systematic use of knowledge for intelligent human action, suggesting the most advanced technology was the arts of the mind (Saettler, 1990). But, this aspect of technology as the active reconstruction of personal knowledge has not been acknowledged in long-reigning blueprint models of instructional design. As Bernard and Lundgren-Cayrol (1992), Saettler (1990), and others have provided careful historical reviews of developments in the field of educational technology, this short overview will serve only to highlight the thesis of this paper: Prevailing design models have not acknowledged the instructional designer as an active constructor of knowing and meaning in the instructional design process.

From Blueprint to Social Interaction

The Gagne-Briggs cognitive instructional model (described in Gagne & Briggs, 1979, and elsewhere) describing nine events of instruction remains the foundation or beginning point of subsequent instructional design systems which make the learner the focal point of the process (Saettler, 1990). One of Gagne's well-known colleagues, E. David Merrill, concentrating on the forms of displays that these events might take, has developed the Component Display Theory. Currently, he and his colleagues are working on an instructional design system based on expert tutoring, in which the human instructional designer is eliminated almost entirely.

The mid-sixties saw the reconceptualization of the field away from the media, or hardware view, of the 1950's toward the entire process of information communication from a source to a receiver. Until the sixties, communication models implied that communication took place in a vacuum. With the emergence of the Riley and Riley model (1959) the important roles played by primary groups, distinguished by their degree of intimacy, and reference groups, by which attitudes, values and behaviors are defined, were identified. From my own interest in the complexity of communication in the design process (as a collaborative, reflective, interpretive conversation), these models are among the first to include the sender of the message (the designer) as instrumental in determining its impact on the receiver.

Instructional Systems Design (ISD), which also emerged at this time, was an effort to design a complete program or develop a course of instruction to meet specific needs and objectives. Many approaches offered flowcharts and a list of steps to be followed (for

example, Dick & Carey, 1978). One literature review (Andrews & Goodson, 1980) found sixty descriptions of systems models and identified fourteen tasks accomplished in the systems design process (Saettler, 1990). The U.S. Air Force formalized the systems concept and, more importantly to my thesis, between 1953 and 1960 the idea of the design team emerged, usually including a systems analyst, a programmer, and a systems designer. This approach attempted to combat the prevailing notion of hardware being the key to a successful system. One criticism of ISD is that it is inhumane and impersonal, but, as Saettler points out (p. 350), systems are whatever they were designed to be: That is, systems reflect the values of their creators. In this statement I begin to find an acknowledgement of the personal contribution of the instructional designer.

By the late seventies educational technology was on the threshold of a new theoretical orientation (Bernard & Lundgren-Cayrol, 1991; Saettler, 1990). Bernard and Lundgren-Cayrol (1991) characterize the research focus in this period as moving away from the improvement of teaching and towards a more complete understanding of the learning process, resulting in even greater emphasis on cognitive theoretical orientations and a burgeoning interest in social psychology (p. 161, 163). The focus of instructional design efforts now was on the learner's interaction with the instructional materials. Resnick (1976) described the central role of the active learner in constructing knowledge as interactionist, and that of the instructional designer as putting learners in positions that allowed them to make personal meaning. Concomitantly, theories that emerged during this time were based on a cognitive orientation, with emphasis on how to design optimal instruction.

Reigeluth (1983) described instructional design as a professional activity done by teachers and instructional developers, resulting in an architect's blueprint for what the instruction should be like. In this view, instructional design as a discipline is concerned with producing knowledge about optimal blueprints and describing the learning contexts in which these blueprints can be optimized. Thus, although the learner was invited into the process, it was only to reconstruct the materials that were already there. In this sense, the learner was not a true partner in the enterprise; there was little change in the orientation of instructional design as the maximizing of contingencies. Until the late 1980's, the task of theorists was to devise and/or describe a foolproof (i.e. designer-proof) model that could be easily translated to intelligent machines. At the same time, however, some of us who had been working with collaborative design teams began to ask about the meaning of instructional design methods and the values that they conveyed. My own discomfort

revolved around two issues: (a) there was no room for reflection of my own personal experience as a teacher/classroom manager/questioner/knower of students in the fill-in-the-blanks models; (b) nor was my knowledge of the context legitimated.

Alternative Knowledge Perspectives

In an emerging conversation among instructional design theorists, many of the questions raised can be related to a parallel conversation about the nature and influence of teacher thinking in curriculum planning and implementation.

Sources of Personal Practical Knowledge

Although teacher thinking has only begun to be explored in the past decade (Lyons, 1990), recent research provides evidence of at least two different views of knowledge: (a) the views held of knowledge in general, and of one's community of knowledgeable peers in particular; (b) and the stance taken towards one's students, whether as active knowers who construct their own knowledge, or as passive receivers of knowledge. Implications for teachers as curriculum planners relate to nested knowing in the sense of "several interacting epistemological tasks coming together in an encounter with knowledge, in particular contexts and with specific students" (p. 175). Lyons suggests that the teacher's instructional decision-making, which is interdependent, is mediated by the teacher's understanding of the students as knowers, one's personal stance towards a discipline and knowledge, and beliefs about herself as a knower. In some ways that have emerged over two decades of looking at teaching as work, and in trying to understand how teachers define that work, uncovering the practical wisdom (knowledge) of competent teachers has started to provide a rich source of insights for the improvement of teaching and teacher education (Feiman-Nemser & Floden, 1986). This wisdom embodies "[practical] knowledge that enables teachers to do their work" (p. 508), knowledge constructed through active engagement with others, including students, which until recently has not been legitimated as professional, technical knowledge. Feiman-Nemser and Floden (1986) reject a view of acceptable knowledge/practice in which teachers' plans are not situated in nested epistemologies. On the contrary, empirical research implies that teachers have a substantive body of knowledge that is actively related to the world of practice, in different forms and in different kinds of performances. Consequently, the image of a passive teacher, who faithfully implements externally generated, self-contained, fool-proof plans, is being replaced with an image of teacher as active agent, constructor of perspectives and plans, and chooser of action (p. 523).

A parallel view of instructional designer as active "knowledge worker"

(Richardson-Koehler, 1989) argues for the authenticity of personal beliefs and knowledge structures for practice, which are surfaced by dialogue and lived out in different instructional design contexts.

New Understandings of Instructional Design

In 1989, Mitchell entered a debate similar to that of the authenticity of teachers' personal practical knowledge with "The Future of Educational Technology is Past" (itself a response to Beckwith's "The Future of Educational Technology", 1988), a cogent plea for a new, transformative paradigm for instructional technology which refuses to settle "for routine applications more characteristic of a craft ... (that) center on our adopting a world view that is, if not obsolete, incomplete and useless for understanding the complex problems that need to be solved" (p. 4). Beckwith (1988) had suggested that the original purpose of educational technology , the betterment of humankind, had become lost within the mists of routine applications of standard procedures based on "reductionist, conclusion-oriented, static, systematic research models" (p. 14).

Personal Attributes of Designers

Beckwith (1988) describes the danger of systematic thinking in which "function becomes purpose" (p. 17), a warning echoed by Ivor K. Davies (1991). Mitchell (1989), in turn, acknowledges the potentially transformative aspect of instructional design graduate programs that ask, *"What kind of person do we hope to turn out and what will that person need to know, believe, hope, fear, love and do ?"*(p. 7, italics added). Mitchell identifies the contradiction between evolving views of learners as active makers of knowledge and "two models of human behavior, one for those who control and one for the persons being controlled" (p. 11). Clearly, the neo-behaviourist, cognitive view of learners as an "input-output system which somehow responds to information displays by means of ... measurable changes in capability" (p. 10), relates to the notion that underlies mechanistic design models, that is, some human being--the instructional designer, trainer, or teacher--is expected to apply these causative factors (objectives, advance organizers, instructional materials, rewards or punishments) to other human beings.

Mitchell (1989) argues for a paradigm shift away from behavioral science's reductionist approach to the cybernetic or systemic view of instructional design, in which knowledge is treated as "complex, relativistic and open to interpretation" (p. 12). Ivor K. Davies (1989) describes the humane skills needed by designers working in teams: "Educational technologists need a balanced mix of competencies in order to perform their

role effectively .... The distinctly humane skills of perception and intuition, together with the crucial element of timing, are also becoming extremely important in the mix" (p. 134). Other theorists, like Landa (1983), ask:

> What are the sources of a teacher's knowledge of instructional programs and/or processes? .... The first of them (historically and often ontologically) is one's own and other teachers' practical experiences of what happens (or what outcomes appear) if one performs some instructional actions under certain conditions (p. 59).

Emerging Paradigms

As noted, Joseph Schwab (1962, 1980) described four commonplaces that form the starting points for developing a practical knowledge on which action is predicated, a stance significantly different from that of the objectives-driven technical model in which the teacher is a passive implementer of plans constructed by others. Hlynka and Belland (1991) speculate on this aspect of design:

> Even if an instructional developer is striving mightily to be scientific and systematic in the design of an instructional system, many of the decisions made in the course of development will be aesthetic, intuitive, experiential and phenomenological .... Critical paradigms provide a mode of inquiry which can provide insight and information which goes beyond the possibilities of scientific inquiry ... [into] the realm of art (p. 9).

Research on teacher planning indicates that most teachers plan mentally on a reflective basis, only attaching objectives retrospectively to their actions. My problem as an instructional designer is this tension between the reconciliation of a view of design as accountable to a blueprint theory, which as the expert I felt compelled to follow, and a view of design as representative of the narrative experiences of its author(s), which I felt compelled to justify by applying the model retrospectively. In its transformative orientation this reflective/interpretive stance seems to best reflect Schon's view of design-as-dialogue and Banathy's (1991) reconceptualization of design as dialectical, holistic, and occurring in a spiral, and may provide a conceptual framework for examining the design process as one in which participants (designers, context experts, television producers, actors ...) engage in the construction of a meaning-full plan through conversation and sharing of narratives of experience.

Emerging critical paradigms in instructional design seek, in part, to reconcile the view of design as product-oriented optimal blueprint and design as process-oriented and ontologically-based. At the same time as there is growing interest in the nature of teacher

thinking, theorists such as Tripp (1991) and Schon (1983, 1987) are exploring the possibility that designers may use different approaches at different times on different kinds of problems, and that the decisions may be at least partly intuitive.

Instructional Design as Situated Action

As has been outlined, instructional design activity has moved from the behaviorist orientation of the sixties to a cognitivist orientation in the eighties. While the behaviorist model looked for measurable changes in external behavior only, the cognitivist paradigm claims that learning is defined by changes in cognitive structures which are evidenced by changes in external behaviors. The learner's cognitive structures (plans) are treated as the causes of behavioral responses. Gagne and Briggs (1979) express the cognitivist orientation by the concept of learned capabilities. Instructional design theorists such as Gagne claim that an instructional plan can generate both appropriate environmental stimuli and instructional interactions, and thereby bring about a change in the cognitive structures and operations of the learner.

In my view, this paradigm emphasizes the interrelatedness of the teacher and the learner, the essential aspect of the teacher as planner residing in the knowledge structures and instructional plans that he/she embodies. Streibel (1991) describes a missing "box" in the systems flowchart when he asks:

> Do human beings, such as teachers and learners, follow plans (no matter how tentative or incomplete those plans might be) when they solve real-world problems or do human beings develop embodied skills that are only prospectively or retrospectively represented by plans? This question seems to me to be fundamental to a conception of instructional design. To wit: *Is it possible to consider instructional design models as plans to be used independently of the knowledge and meaning structures of the instructional designer* [italics added]? And, when the design takes place in a collaborative setting, how can one model or plan represent the personal knowledge of all team members? (p. 117).

Suchman (1987), who explored the interpretation of an expert tutoring system designed by Xerox, questions whether any one theory or model, in our case of instructional design, can be used to guide the actions of the learners or practitioners. In particular, how can the cognitivist paradigm guide "human teaching and learning when these activities are fundamentally context-bound, situational activities and not context-free, plan-based activities?" (p. 120).

The foregoing authors, as does Donald Schon (1983), draw attention to a

problematic aspect of the cognitivist paradigm, where plans must become situated actions when human beings are involved. Following this model, the basis of cognitivist interaction is a physical science concept of "reciprocal action or influence" which results in the separation of "meaning, imagination, and reason from a bodily basis" (Suchman, 1987, p. 121).

Each practitioner in the collaborative instructional design process brings a unique biography and history to each new experience, and each new learning interaction entails a unique, phenomenologically and contextually-bound process which requires sense-making. Whereas in the cognitive model plans determine the meanings of actions, "the in situ interpretations of lived experiences by the participants determine the meanings of actions in the 'life-world' of situated actions ..." (Suchman, 1987, p. 121). In other words, the participants in such a process act, or design, on the basis of embodied skills and understandings and not solely on the basis of rational, technical plans. In the planning dilemma described here (and in Engel & Campbell-Bonar, 1989), the design of the resulting videodisc emerged as a composite of experience constructed from the telling, the public examination, and the synthesis of our own classroom experiences as teachers/managers/members of the community, and was reflective of our renewal as moral decision-makers.

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PAPER TWO

THE COLLABORATIVE MILIEU OF INSTRUCTIONAL DESIGN

> ... an adequately conceived biography is as much a representation of a culture as it is a revelation of a unique individual. The social ... is embodied in the individual, though not only, nor even mostly, in simple social reproduction terms. The relationship is a dynamic one in which the social is reconstructed for a personal life story and in which the larger social structures themselves are influenced by personal action.
>
> Clandinin & Connelly, 1991, p. 262.

Since its inception instructional design, much like its cousin curriculum planning, has been considered a scientific, systematic process (Heinich, 1991; Saettler, 1990; Tripp, 1991). Designers have been expected to work with blueprints based on behavioral principles, cognitive-learning theory, and mass communication models. Like curriculum planning, instructional design has been, first and foremost, based on learning goals or objectives identified through rigorous methods of task analysis (Hlynka, 1991; Saettler, 1990; Tripp, 1991). These methods describe the learning environment, the students' entry behaviors and evidence of goal mastery; and have resulted in the application of carefully matched instructional strategies that were virtually teacher-proof (or designer-proof) in implementation. In these rational models there was no room for decisions based on designer or teacher experience, or for reaction to the unfolding social context of the classroom or the learning environment.

By the late sixties, however, some curriculum designers had begun to challenge the emphasis on curriculum design as a set of carefully written behavioral objectives. Eisner (1985), for one, suggested that the prespecification of goals was an artifact of the view underlying Western technology that resulted in means-end thinking. He reminds us that, on the contrary, life in classrooms cannot be predicted, nor does it unfold, in a neat linear sequence.

The empowerment of alternate knowledge communities (Taylor & Swartz, 1991), such as teachers and instructional designers (and teachers as instructional designers), has highlighted the inadequacy of the systematic planning models reflected in dominant, rational paradigms (Schon, 1983). While there has been a successful challenge to the rational view in curriculum planning, the situation has not been as clear in instructional

design.

A Retrospective Look at an Instructional Design Process

The Instructional Technology Centre (the Centre), in the Faculty of Education, University of Alberta, has been involved in interactive videodisc technology since 1980. Working cooperatively with the Department of Secondary Education, for example, Centre staff designed and produced two classroom management simulations for a required course preparing third year education students for their first practicum experience. Although both simulations depended on the cooperation and input of teachers and students in public school classrooms, and featured almost exclusively location (classroom) shooting, neither were designed collaboratively with practitioners. However the second videodisc, "Classroom Management: a Case Study Approach", featured Mary Neely as an assistant principal, a key content facilitator in the program who was, in real life, a consultant in Edmonton Public School's Effective Teaching inservice program (for a more comprehensive description of the design, see Engel & Campbell-Bonar, 1989). At the time of completion of the second project, the Faculty of Education and Edmonton Public Schools (EPS) were beginning to seek collaborative links with each other, and the relationship created by the participation of the assistant principal led to an intentionally collaborative effort to design a third Level II interactive videodisc, "Do I Ask Effective Questions? or, I Can Hardly Wait to Hear What I'll Ask Next!" (see Campbell-Bonar & Grisdale, 1991).

As with the first two projects in this series, I was to provide the instructional design expertise. On the first two projects, I had not been long out of the classroom, and felt especially comfortable in the content area. I was able to function as an instructional planner because I perceived no conflicting pull between content knowledge and design knowledge. I felt I had content knowledge, and my intuitive planning process had worked well for me as a teacher. As I reflect on this period, I realize that the lack of conflict also related to my position vis-a-vis the faculty members with whom I was working--I was a graduate student in the department, a good public school teacher with expertise in classroom management, and no threat as an expert in instructional planning at the University level. After these projects, in which I was engaged under the auspices of a respected academic, i.e. my advisor, it was expected that I would take back to the public classroom the received knowledge of the academic community.

The Plan Emerges

At the start of this third project, however, there seemed to be more at stake. I was now on the professional staff in the Centre, and was both expected to have instructional planning expertise by its supporters and denied that expertise by its detractors. I had not taught in the public schools for six years, and felt that I knew very little about effective questioning strategies as formal content. In Bruffee's terms (1984), I did not feel that I could engage in normal discourse with a community of knowledgeable peers. In addition, I felt strongly that EPS was really my professional home, so I was anxious to make a good showing. At the same time, I felt more constrained by my instructional designer role and, as a consequence, more accountable to a circumscribed, that is, rational, model of instructional design practice. However, I was not sure what the model looked like in working practice, and I certainly did not know how to communicate the practice to others with whom I would construct an experience of questioning in the classroom. This group included Roy, a teacher from EPS, on sabbatical leave; Louise, a consultant with the Instructional Processes group at EPS; and Al, a professor in the Department of Secondary Education and Coordinator of Phase II Practicum.

At the very beginning of the QDisc project (as it came to be called), the designated content experts, Louise and Al, asked for a summer reading list so they would be more knowledgeable about the process when we began. I found pieces on current instructional design theories and models, examples of program flowcharts from previous videodisc designs, and role descriptions for each member of the team (a process Haughey, 1993, refers to as "evening up the expertise"). When we came together again in the fall in our first real design meeting, and subsequently for many times following, one of the content experts asked me, "But what is this going to look like?" Because I was the instructional design expert, it was expected that I would interpret design theory into practice for the team, and by my knowing actions guide them to a preconceived end--a videodisc of this sort will look like thus and so--almost in a connect-the-dots process. Actually, although I could not visualize what <u>this</u> videodisc was going to look like, and, in fact, had had no idea at the beginning of any other videodisc design process, I still thought I should be able to see the design in my head. I saw my job as having and communicating this knowledge to the others and at first, certainly, the other team members saw me as the provider of instructional design expertise for their content.

In the rational model I thought I should follow, the content experts would tell me about teachers' questions and I would fill in the empty boxes of some predetermined design flowchart. In this model, certain concepts and activities would lead automatically,

unquestionably, to other concepts and activities. It would all be logical, the next steps would be self-evident; there would be no ambiguity. The design itself, as it unfolded, would somehow tell me what to do next. For many weeks I was intensely anxious because I could not say, "It will look like this when we're done: It will open with a short classroom sequence in which a teacher frames a question poorly, followed by an embedded question about wait time, followed by a menu of choices about question framing--distribution, wait time, increasing accountability--and the first choice will lead to ...." However, what to me was a source of professional ineptitude appeared to other team members to be an intentional way of encouraging everyone to contribute to the creative process. Roy, the graduate student team member who was also working independently with me in a directed study (as the instructional design expert, I was to guide his readings), said admiringly:

> I can remember you talking to me sometimes when we'd be sitting down there doing this thing, "I don't have the design model yet, I still don't know what the model is for the design", and I just thought it was really neat that you could go in like that ... and I would see us moving along, going through certain processes, and putting closure to some of those processes, and re-opening them, re-examining them. But I don't think it was ... you standing up at the board and going through one (model). You worked with us as a group. And you allowed us to work as a group (Roy, 1993, March 18).

And I replied:

> It's not a matter of allowing it, because the confession that I have to make to you [the group] ... was ... someone says "What model are you using?" and I wouldn't possibly have been able to come up with one! To me, they're sort of ... well, I don't even know [the names of] them ! That made me really nervous, actually (Katy, 1993, March 18).

In spite of my certainty that it was only a matter of time before I was caught out, a workable instructional plan did begin to emerge. And at some point, I finally admitted what I knew in my bones about teaching--that, in constant collaborative interaction with other lives, the instructional plan will emerge.

As Schon suggests (1983, 1987), the design process actually seems to thrive on a degree of uncertainty, confusion, and ambiguity. I suspect this is particularly true of interinstitutional collaborative processes, such as the one described in this dissertation. Initial feelings of inadequacy, predicated on the belief that you, the designer, have to know what to do at all stages in the process, that you will have anticipated the next steps far in

advance (even through to the end), may be a more universal phenomenon in the world of course design than has been admitted. In "A Tale From the Mud", Murphy & Taylor (1992) tell a familiar story of uncertainty and fear-of-failure during a team effort to re-design a college course in garment design. They reflect on their eventual reconciliations of the models of design-as-blueprint with design-as-chaos :

> Some might suggest that it would have been better to follow explicitly one of the [current instructional design] theories, thus avoiding the confusion that occurred during development. I don't believe it. What I do believe is that the reality of instructional design is often confusion, ambiguity and uncertainty which, when managed effectively, can lead to high quality course materials ... Things aren't structured, there's a lot of ambiguity, there's a lot of things that will happen during the developmental process, so that at the beginning you can't neatly specify all the aims and objectives and know what's going to appear at the end (p. 64).

Reading their account of a collaborative design process, I wonder how those of us who work in university settings where course development teams are created from a potpourri of knowledge groups--teachers and students, teacher educators, design experts, production personnel--can legitimate and represent the experiences of all partners in a single design process and product?

Alternative Views of Instructional Design

In its conception as a systematic, ends-based process, instructional technology has supported the delivery of a fixed knowledge base across time and space. Replicability and reliability issues have reflected the view that an instructional product, once designed, can be reproduced endlessly and used repeatedly, resulting in the same outcomes regardless of context. Taylor and Swartz (1991) ask two important questions that raise issues for the instructional designer: (a) "How will this worldview of instructional technology serve the members of an alternative knowledge community who expect people to collectively engage in the creation of knowledge?" and (b) "How will instructional technology respond to the requirements of fluid, multiple knowledge structures negotiated at the local level?" (p. 61).

These two questions, and my own questions of how instructional design models fit or do not fit my understanding of a collaborative process, draw attention to the need for alternative ways of characterizing the instructional design process. One alternative is Schon's (1987) notion of design as a process of reflection-in-action: He argues that the skilled designer/planner must possess the kinds of knowledge which will engage the team

members in a dialogue with phenomena in the field, within the social context of negotiation. With Schon's notion of design-as-dialogue, the defining characteristics of the design activities are uncertainty, uniqueness, and conflict. In the sense that collaborative design teams do the work of design by engaging in lively conversations about, in the QDisc case, their very different experiences as askers of questions, as consultants to askers of questions, and as students of questioning technique, the process can be described as creative, intuitive, holistic, interactive, and reflective. Schon's notion of design seemed to offer a more promising way of conceptualizing the collaborative design process in which I was engaged with my colleagues. This accounting of our process helps me understand how and why I must work outside the rational, impersonal models applied in the typical interinstitutional team-based projects in which the lives of the team members are of little practical consequence in the design work.

The Social Environment of Collaboration

In my own work in instructional design and collaboration, the social environment was key. In creating a social environment I saw myself as part of a creative, dialectical process in which life experiences were integrated in the community of knowers, the collaborative design team members. The working model of this community was the sharing of meanings, values, imaginations, and histories in constant, collaborative conversation. In this social milieu, conversation became a design tool with which to plumb the knowledge dimensions of the team members. This working model is radically different from that of the hierarchical, role-based approaches in that it is plurivocal, making space for and depending on the weaving together of the design talk of all the participants for its substance.

As I saw it initially, my work as project manager was to ensure that everyone's voice was heard and was seen to contribute with parity to the process. In the process explored in this paper, the traditional power/responsibility of the instructional designer to make space for everyone's voice devolved into a shared responsibility of the team members, despite a perceived inequality of status at the outset. In my case, I not only had to consider the tenuous status of instructional designer working with academic content experts, which placed me in a position of receiving knowledge rather than helping to construct it, but I was attuned to Roy's relative feelings of academic/design inadequacy, as he had joined an already established team of peers at the request of his thesis advisor who wanted him to experience the design of interactive videodisc materials.

I would suggest, actually, that our shared inequality is a part of life in the academic

environment in which the Centre, a service department, works: A quite explicitly stated faculty view that Centre designers are "just technicians" requires that we are sensitive to nuances of power and turf during design projects. How much more tentative Roy felt--joining an established group, not as a designated designer or content expert, but as a graduate student, a teacher on sabbatical--was evident in the initial process activities he undertook. He began by keeping a journal of meetings and taking a photographic record of concept-mapping, seeing himself as more a recorder than a participant:

> I think it was rather interesting, in again, the poor sister view that I had, because I felt very much, as a result of my role, that I was an observer of the process ... because that was part of my project (Roy, 1993, March 18).

The group responded, however, by placing an explicit value on collaborative process, (Louise replied simply, "And we wouldn't let you.") and we chose to celebrate Roy's facility with group process, honed as a drama teacher, and his television production expertise, unique among the other team members. In a sense, this eclecticism, evidenced by every team member, became Roy's calling card of expertise.

The design of the interactive videodisc required the interaction of individuals with diverse personal experiences, values, knowledge structures and professional backgrounds. As instructional designer I see myself as needing to be sensitive to the meanings that are constructed collaboratively within the larger culture of the project and smaller culture of the design team. In effect, the collaborative interactive videodisc design team defines a new model of planning, one that is as enamored of collaborative design process as of product; one that finds the story of planning as telling as the plan itself.

In the past, instructional design teams have been constructed from fields of expertise, like television production, familiar with linear, rational planning. In the rational model, interpersonal interaction in the context of planning has often been disjointed and instrumental, based on hierarchies of knowledge, in which the designer extracts or receives information from the content expert (sometimes by structured questionnaire), organizes it in instructional sequences, which are realized by the production group, and eventually signed off by the field testers. In the collaborative model, however, the telling and blending of stories is the basis of new understandings of the making of teachers as question-askers; and the design work is a conversation-based process in which these new understandings are negotiated in the form of an instructional program.

Design as a Process of Collaboration

The collaborative process has been described from a number of perspectives

including the action research paradigm (Hollingsworth, 1991; Oja & Smulyan, 1989), from the cooperative group process perspective (Johnson, Johnson, & Holubec, 1986), and from special education's multidisciplinary team approach (Idol, Paolucci-Whitcomb, & Nevin, 1986). But generally, the process as described involves teams of people with diverse expertise in an interactive process in which all members work with parity to mutually define a problem. Collaboration is characterized by mutual understanding and consensual decision-making resulting in creative solutions, that are enhanced and altered from those that any team member would produce independently, and by common action (Idol, Paolucci-Whitcomb & Nevin, 1986; Oja & Smulyan, 1989; Tikunoff, Ward & Griffen, 1979). Advantages of the process which seem particularly applicable to collaborative videodisc design projects include increased sharing of material and human resources across professional disciplines, facilitation of liaison activities among institutions, and cost effectiveness (Idol, Paolucci-Whitcomb & Nevin, 1986); the generation of unique solutions (Falk & Johnson, 1977); and better decision-making that results from the pooling and recombination of resources (Laughlin, Branch & Johnson, 1969).

The Collaborative Process in Our Project

The writing of this story is a retrospective attempt to understand the social, interactional process of collaborative planning in an interinstitutional videodisc design project. Instructional design, as practiced in the Centre, involves a team of people in a context in which strategies must be imagined and negotiated within an instructional and temporal framework. The negotiated strategies result in concrete, strategies that can be described and scripted, videotaped, sequenced, programmed, and eventually encased in a permanent plastic medium. In a social situation such as this, the participant-designers (because part of the negotiation results in consensual decision-making and shared ownership of meaning) are continually interpreting the same experienced events differently from the others. An additional layer of complex meaning may also be anticipated and interpreted by the designers in advance, the meaning that each learner will bring to their personal and idiosyncratic ordering of the events on the disc. I suspect that our shared backgrounds as teachers, that is, as professional and practiced anticipators of student needs, were pivotal to the integration and embodiment in plan form of these many meaning levels. Aoki (1991) refers to something similar when he describes dialogue (or, after Schon, design) situations in which "motives, authentic experiences and common meanings" (p. 73) are clarified in the phenomenology of socially constructed

understanding, that is, the constant collaborative conversation of the design process.

All of the designers in a collaborative team are aware that each is the sum of all past experiences and that their embodied knowledge about (in this particular case) teaching will cause them to interpret the design task and experience through personally and socially constructed symbolic forms. This view of instructional design as the construction of knowledge identifies negotiation (Bruffee, 1984) as the basis of a process in which room must be made for the voices of all participants (Olson, 1993). A collaborative process encourages everyone's voice, while a traditional process in which the designer chooses a model, extracts content knowledge from an expert and fits it into small boxes and arrows, does not.

In accepting this stance, the designers accept that knowledge is not value-neutral, but is created by the blending of all voices. Instructional design models in vogue for the past several decades have been seen as value-neutral, but work in teacher knowledge has shown that knowledge, knowing, doing, and valuing are inextricably bound up together. Instructional design theorists like Hlynka (1991) are helping us move from a single interpretation of reality and truth, "towards multiple and simultaneous interpretations" (p. 38), that are community-generated and community-maintained linguistic or symbolic entities.

In direct contrast to the science of instructional design, Taylor & Swartz (1991) refer to what might be called the language of collaboration:

> In other words, there is no such thing as a universal foundation, framework or structure of knowledge. There is only an agreement, a consensus arrived at for the time being by communities of knowledgeable peers (collaborative design teams). Ideas, concepts etc. are all language constructs generated by knowledge communities and used to maintain community coherence (p. 56).

Design as Conversation

In this paper, what seems to best capture our process is a view of the design process as a creation of collaborative stories. This metaphor includes the notion of design-as-dialogue, but goes beyond the idea that the designer will extract content from the subject matter experts in a series of intentional conversations. Indicating that a goal of narrative inquiry with teachers is the mutual "living, telling, retelling and reliving of stories" (p. 265), Connelly and Clandinin (1991) describe nicely the importance of reflective dialogue in collaborative instructional design teams in which "the stories of our participants merged with our own to create new stories, ones that we have labelled

collaborative stories" (1990, p. 12). These collaborative stories, which I see as both the process and the product of team-based instructional design, are personally meaningful and help the designers make instructional meaning (designing a videodisc) through the sharing of creativity and imagination:

> There is no clear distinction between the practical and the imaginative dimensions of knowledge. For imagination is required in the tasks of mastering reality .... The imagination seems to be both a dependent and an independent entity in the makeup of human personality .... One result of this is that it is nearly impossible for a human being to perform even the most prosaic task without some admixture of imagination (Katz & Sanford, 1962, p. 420).

An instructional design model that sanctioned these entities would alleviate much of the guilt felt by designers, like me, who turn to blueprint models only retrospectively.

Researchers, educators and scholars have argued that knowledge and values are important dimensions of teaching, implicit in a teacher's sense of mission and critical to a conception of practice (Lyons, 1990). The knowledge bases and dimensions of teaching are only just now being scrutinized and identified. Teacher thinking as a research focus appeared for the first time in the 1986 edition of "The Third Handbook of Research on Teaching" (Lyons, 1990). Researchers such as Eisner (1985); Clandinin and Connelly (1988); Butt, Raymond and Townsend (1990); Noddings (1986), and Schon (1983, 1987), among others, are now beginning to look explicitly at teachers' knowledge structures and value systems in terms of content expertise, ethical and strategic action, and personal knowledge. To date, few similar attempts have been made to investigate the personal practical knowledge of members of the instructional design team.

Transforming Personal Knowledge into Design Practice

Instructional design models, it might be argued, exist to guide practice throughout the confusions and pitfalls of the process. In reality, however, a long-term collaborative endeavor such as an interinstitutional videodisc design project is characterized by elements of a chaotic, unstable, open social system, which includes elements of disequilibrium (Murphy & Taylor, 1992). In this view, the institutional goal of the project, to design a Level II videodisc on questioning strategies for inservice and preservice teacher education, is not perceived so much as an end view but as a beacon guiding the process (Doll, 1987). But once the design process develops its own ethos, as the end-in-view becomes one of creation of collaborative design stories, the commonplaces (Schwab, 1962, 1980) of students, teacher, curriculum, and milieu become transformed; and the process of design

becomes a developmental process of personal growth rather than a body of knowledge to be consumed (Doll, 1987).

Like Streibel (1991), I have been uneasy at my perceived lack of rigor in applying accepted instructional design models to my own design work in the Centre. Yet I have successfully designed on and/or managed a number of interactive, multi-media projects for the Faculty of Education. Over the past several years, I have become aware that who I now am and who I am evolving to be contributes to the way I embody and act on my instructional design "knowing". I must, then, make room in the process for the voices of the design partners. This is true for all those with whom I work on a project, all of whom become collaborative design partners.

In this paper I have outlined my dilemma with the received knowledge of rational, linear, algorithmic models of instructional design which have focused on the implementation of a cognitively-based plan to the exclusion of an understanding of the designer's "situated actions" (Suchman, 1987). I have taken the view that the instructional design process, as it is enacted through the Instructional Technology Centre, should be collaborative and socially constructed; that is, based on reflective dialogue/conversation, negotiation, intuition, and embodied knowledge.

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PAPER THREE

COLLABORATIVELY TRANSFORMING PERSONAL PRACTICAL KNOWLEDGE INTO THE INSTRUCTIONAL PLAN

> Viewed in this way, a curriculum area is a vibrant, human process lived out in the rough and tumble, give and take, joys and despairs, plots and counter-plots of a teacher's life. It is not simply a body of knowledge .... individuals can and do chart their own courses, and can engage with the curriculum at a deep personal level. For a full appreciation of this I have argued that we need to take a whole life perspective. Our data have suggested how the formulation of self in the early years may relate to later teaching and handling of a subject area, and the part played in the formulation of that self by such factors as home environment, parents, teachers, marriage and socioeconomic and political factors ....
>
> Peter Woods, 1984, p. 260.

By 1986, the Instructional Technology Centre in the Faculty of Education, University of Alberta (the Centre), had facilitated the design, production, and implementation of two, Level II videodiscs for preservice teacher education (Campbell-Bonar & Grisdale, 1990; Engel & Campbell-Bonar, 1988). Both projects had involved a large and fluctuating group of faculty members from the Department of Secondary Education as subject matter experts, some of whom were public school teachers employed temporarily as sessional instructors, or as graduate student teaching assistants (Mappin & Campbell-Bonar, 1990). In the design model followed by the Centre, these knowledge workers made deposits of content knowledge about classrooms at selected points of the design process, much like one would deposit funds in a joint bank account (after Friere, 1987). These deposits were made in several ways: by completing questionnaires; through participating in personal conversations with the designers; in structured brainstorming sessions for which course instructors were invited; by signing-off content summaries on an individual basis; by participating in panel discussions. Concurrently, the account holders, a smaller team of stable composition, that is, the designated instructional designers and the departmental subject matter expert, made regular withdrawals on the account as the information was needed as content for the instructional

design. Members of this core group often drew on more than one area of expertise, for example, an instructional designer from the Centre was also knowledgeable about classroom management, and it was in this core group that content knowledge became transformed into working knowledge for the design. I like the banking metaphor to describe this process because it has always seemed to me that the content for the videodiscs was expected to exist independently of the individuals that knew it; that it could be isolated and quantified. This notion of content knowledge as entirely impersonal became a source of personal tension for me.

The Videodiscs: Stories as Content

The first videodisc, "Classroom Discipline: a Simulation Approach", had as a design process goal, the exploration of Level II interactive technology for simulation exercises. The disc contained four scenarios presenting easily resolved classroom management problems: the student's (user's) task was to assume the persona of a beginning teacher attempting to quickly resolve the dilemma before losing control of the class. However, in the second videodisc, "Classroom Management: A Case Study Approach", both the design process and pedagogical goals reflected a more phenomenological orientation: we wanted to tell the story of one adolescent's life as it unfolded in the context of the school community. Again the student user, a preservice teacher, was a character in the story--a beginning teacher trying to understand how the nested lives of teachers and their students (Lyons, 1990) played out in the secondary classroom. In this story, we recognized that living with young people in classrooms in caring ways embodied moral and ethical dimensions of action and interaction, although we did not have that language until much later (Noddings, 1986, 1991). The idea of lives that are nested one within another, fitting into each other and growing together to produce new understandings, seemed an authentic way of thinking about how we are interconnected in our knowings about the relationships of teachers to students and teachers to teachers.

Although both videodiscs had as their content the lives of students and teachers in real classrooms, their stories were imagined and told by us, the designers. Looking back, now, I see that they are as authentic as they are because the stories were told out of the lives of the designers--teachers, all. And each story becomes more authentic as more of the lives of the storytellers and storylivers are allowed to emerge in the instructional plan of the videodisc.

The story of the third videodisc, "Do I Ask Effective Questions? or, I Can Hardly

Wait to Hear What I'll Ask Next!" (or, QDisc), has its beginnings in the story of the second, how the life of a school administrator is nested into the lives of her school family, our beginning teacher, and Susan, a student in crisis. And it is in telling the stories of these lives that we find out who we are in each others' stories, and how these stories became the story of QDisc.

Nested Stories, Nested Lives

In a process that reflected the design model, the research methodology was conversation-based. That is, the core team of designers met over four months to share, in conversation, remembered stories of the collaborative design process. The content and the design for the instructional design of "Do I Ask Effective Questions?" emerged from these blended stories of teaching, and the research conversation was both the content (data) and the plan (methodology) of the study. I have come to think of these blended stories as nests of meaning.

The First Nest: Classroom Discipline

By the mid-eighties, local interest in interinstitutional collaborative processes was burgeoning. Before this time, research in classrooms had been, at best, cooperative in nature, usually initiated by a faculty member and carried out on a teacher and class in the local school district. But now local school districts, such as Edmonton Public Schools (EPS), and the Faculty of Education began to seek ways to work more collaboratively to identify activities facilitative of both preservice and inservice teacher education. In 1987 EPS hosted a mini-conference at the school board office, the Centre for Education, during which interinstitutional groups talked and planned together. The next year the Faculty of Education was the site for this activity.

During this time, the Department of Secondary Education was exploring ways to provide "real" classroom experiences to third year education students about to experience their first round of practicum. Douglas V. Parker, Professor, had experimented with simulation activities using interactive videotape (SIMCLASS) in the late 70's, and by the early 80's had secured research support to explore the new interactive videodisc technology. With the support of David Mappin, Director of the Instructional Technology Centre, the Faculty's first Level II videodisc, "Classroom Discipline: A Simulation Approach", was developed (Mappin & Parker, 1985). One of the four scenarios was videotaped at Rosslyn Junior High School.

Mary Neely Joins the Family

Mary Neely taught with my mother in various junior high schools. In fact, Mary and several other teachers followed my mother as she was lured by school principals from one English Department to another. Later, I realized that Mary had been a student teacher in my Grade 7 English class at Rosslyn Junior High School before she even met Mom. I remember her as firm, unflappable, humorous. When she taught she moved around the classroom a lot, and she gravely considered our answers. Once she kept the class in after school because we had been rowdy, but after a few minutes she cheerfully said, "Okay, get out of here, you characters." She did not seem to resent our behavior on a personal level.

Soon Mary Neely became a regular at our house. Often, when we came home from school, there would be two or three younger women teachers who had come home with Mom. Sometimes they would stay for dinner. They spent the time before the meal laughing and talking in the living room. Because we lived in close proximity to Mom's school, our after-school friends would occasionally encounter one of their teachers at our house. This was disconcerting for them, because teachers did not have lives outside of the classroom, and they especially did not live at our house, drinking Rum and Coke and talking about our friends' classes after school! It was in this social milieu, in our living room, that the English Department did much of the work of teaching--sharing ideas and practice in stories of life in their classrooms.

As happens, the English Teams formed and reformed, and new regulars appeared after school, but Mary Neely was folded into the family of teaching friends that made up my parents' social group. As my two sisters and I grew into adulthood and teacherhood, we also grew into social and professional membership of this group, and Mary was someone who carefully authorized our presence there. Members of this family went to different schools, and took on leadership roles in the school district and other institutions, or went back to graduate school, but they remained tied to the teaching family of those schools and those days of English curriculum reform in the 60's. Mary included Drama in her teaching repertoire and provided leadership in integrating English/Language Arts and Drama in the school system. In 1986 she was working as an Instructional Processes Consultant in the Teacher Effectiveness series at EPS.

In this story, there are so many nested stories, so many branches and twigs on the family tree. In the telling, the nests seem stacked one on the other, one in the next, growing together. If I pull on a twig, the branch wiggles; a leaf falls off. Here is one leaf on a branch of this family tree: I was a student at Rosslyn Junior High School. Here is

another: a member of my mother's teaching family, Mike Burke, was the principal at Rosslyn. I could shake the teaching family tree for a classroom and Rosslyn would fall out. There are nests within nests within nests on this tree: I was of the student culture of Rosslyn Junior High School; I was of the teaching culture of Edmonton Public Schools; I was of the teaching family of my mother; I was of the videodisc design culture of the Faculty; and Mike Burke and Mary Neely were of the teaching family and district family, and school family of Rosslyn Junior High School.

Katy: Born into the Family

When I think about the source of my instructional design practice, I remember the ways that my teaching story is nested in the teaching stories of my mother and her friends. I literally grew up in EPS. As long as I could remember, my mother taught in the system, mostly in classes of marginalized adolescents, older males classified as juvenile delinquents, to whom she was fiercely devoted. All my parents' friends--the women in our living room after school, the couples every Saturday night--were teachers for EPS. To me, school and teaching were synonymous to, had no reality outside, the Edmonton Public School Board. It did not occur to me that I would teach in any other context but this large, urban district.

The summer I graduated with a B.Ed., I participated in an immersion experience in Jonquiere, Quebec, at the height of separatist sentiment in Quebec. About 30 of us lived with local families for the entire month, living the lives of marginalized French Canadians. The entire experience was such a total personal renaissance in terms of understanding how I was Canadian, that teaching French forever became a political act.

When I returned to Edmonton I was offered an interview in a small, French-speaking, rural enclave in North-Central Alberta. During the interview the principal and superintendent talked mostly to each other and directed very few questions at me. Twice, after a long, circuitous conversation about grades, subjects, community desires, and past history, which I'd tuned out long before since I had no idea what they were talking about, they turned to me and asked, "Can you teach that?", to which I replied, "Certainly." This was to become a common pattern and a persistent dilemma in my career, agreeing to do something for which I feel marginally qualified; not trusting my personal practical knowledge of the teaching/learning context.

In the next few weeks I was apprised of the tensions developing through the political history of the community. Vimy was originally a farming community of Franco-Albertans, with a parochial school system. As more families moved in from

surrounding areas, however, the community was gradually becoming English-dominated and Protestant. I understood that beginning my teaching career in such a context would require me to enact my political stance towards bilingualism, in a way that would be simply confusing and context-less with EPS.

It soon occurred to me that I knew nothing about the culture in which my students lived, and so I approached the principal about driving one child home every day. The experience unexpectedly provided an impetus to define some of my own ethical stances in my praxis, one being my aversion to the apparently casual taking of animal life. This ultimately prevented me from yielding to the teaching culture of the small rural school.

I had asked my mother before September, "What do you do on the first day of school?" I tried to recall my own teachers and their classrooms but only Miss MacArthur stood out clearly. We began the day with a verse from the Bible for oral reading practice, and she was not very developmental in providing feedback. Nowhere in our undergraduate classes had we discussed getting started, or how to read cumulative records, or any of the daily rituals involved at the beginning of the year. Later, the decision to include a database of cumulative records on a videodisc was directly related to this time of guilt and anxiety. Intuitively, I felt that it was important for me to blend in and take on the values of the school, so during the winter months I boarded out in the village, joined a local badminton team, came to all the community basketball games, and attended all the dances and potluck suppers. I tried hard to understand my students as people with rich lives of which my classroom was a small part.

A major difficulty for a new teacher was the lack of curriculum for the French classes I was teaching. I relied on anything I could find that would somehow relate to the lives of my students. Taking a page from my mother's teaching book, I bought novels, magazines, comic books, mystery stories, books of poetry, French decorating magazines ... anything that was written in French. We listened to French radio, and wrote stories and discussed movies and television. I had to either find, create, or buy most of the materials we used. In sum, innovating through necessity became my style of teaching, and when I came into the city to teach with EPS I just expected to carry on in the same vein.

During my first year at Vimy I applied for a position with EPS. Within days I had been sent out to Westbrook Elementary for an interview and I again agreed to teach subjects in which I had no background, Music and Art, in French. As soon as I was offered the position I bought a recorder and several levels of music books and played the instrument all summer on the beach. Along with the job offer came an opportunity to write curriculum in

the summer with a small group of colleagues. For the first time I became professionally involved with a group of colleagues with whom I was expected to contribute creatively to a common goal or product. This group, expanding every year, met for three more summers, and served on several committees during the school year, writing new curriculum, planning common activities, sharing disappointments and breakthroughs, and freely loaning each other games, ideas, and resources. This collaborative experience defined my working style from then on.

One day, a little boy demanded, "My mom and I want to know when we're going to stop having fun and do some French!" This comment highlighted for me my philosophy as a French teacher: we're here to have fun! Accordingly, my friend and colleague Amy, with whom I team taught a grade four French class, made a conscious effort to integrate the Extended French program with the rest of the school curriculum. During that time, we planned and implemented a school-wide Carnival, a Tour de France, neighborhood Christmas caroling, a Fete des Toussaints, and many other special events. Along with the curriculum work the Extended French teachers were undertaking in the summers, these years at Westbrook provided my first highly positive experiences working collaboratively with a school family. In a sense, teaching in this context permitted me to be larger than life; to create an environment where I felt safe to take risks. Now, as a designer, I try to create environments in which students feel safe to take risks,whether choosing to hug an angry Grade Nine student or trying to resolve a problem without contacting the student's parents (possible action choices in the videodiscs "Classroom Discipline: a Simulation Approach" and "Classroom Management: a Case Study Approach"); and at the same time create a collaborative team environment for the designers.

In my second year at Westbrook I started taking graduate night courses, focusing on curriculum design. Our summer curriculum writing groups had produced very useable materials out of our own French teaching praxis: we weren't fettered by such rational concerns as cognitive learning theory because we intuitively knew what would work. I thought that graduate work in curriculum development would enhance my teaching practice and provide guidelines and insight for my curriculum design work.

When I started my program, I assumed that I'd become a master teacher: that was my practical concern. Instead, I bumped up against a totally different agenda, in which abstract curriculum theorizing figured strongly. Being unable to link hermeneutics with teaching the Grade 5 health curriculum in French, I felt confused, incompetent, anxious, and betrayed. I quickly realized that I had to just keep my head down and do the course

work and worry about what it all meant later. Fortuitously, I became involved with the SIMCLASS project near the end of my residency and my story took a new direction: I became an instructional designer.

The Second Nest: SIMCLASS

Doug Parker had been trying for years to provide his students with some form of real-life teaching experience before the practicum. The man had a dream, but the technology wasn't ready for him. In consultation with the (then) Audiovisual Media Centre, he put together some brief black and white footage of three French students waiting for the teacher to start the class. Initially, the footage was on 1" reel-to-reel videotape, and was cabled to a 16k Apple. The student teacher would view the footage, then be asked to choose between four options for getting the students' attention. A tutor would then key in the programming code (the actual SMPTE time code) to retrieve the footage containing the student response to that choice. The idea was to get a sense of actually starting a French class. The process was very clumsy, and the human intervention robbed it of much sense of verisimilitude.

By the early 80's videodisc technology was reliable enough to appear on the industrial market, and Doug had his delivery format for SIMCLASS. After attending a design workshop in Lincoln, Nebraska in 1981, he and David Mappin immediately secured Faculty support and outside funding and, with the participation of a Faculty reading content expert, began to design a simulation for reading majors: SIMCLASS (Mappin & Parker, 1985). When I came on the scene, the disc containing the classroom sequences had been sent away to the Pioneer mastering plant in California; while awaiting its safe return Doug was working on the program software. By now, they had a 32k APPLE. My job was to write as many questions as I could, in as many different forms as I could, about the first two paragraphs of the story Golden Touch of Midas[1], which would then be parsed and added to the database as possible student responses.

From Content Expert to Designer

When the funding extended to the development of our first level II videodisc, "Classroom Discipline", I continued with the project; and this time I became one of the content experts--a classroom teacher, a classroom manager, with relationships to teachers

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1 The "Golden Touch of Midas" was designed as a Level III reading simulation, giving preservice elementary teachers practice in framing lower-order questions. A Grade 5 class was videotaped answering content questions about the story, and a computer program retrieved those video responses based on a question keyed in on the computer. In order to design the simulation, "all possible" questions and responses had to be anticipated in advance.

and students in the schools. I was only nine months out of the real world of the classroom at that point, and so had my calling card of teaching expertise (Haughey, 1993). I came on staff in the Centre as a teacher with no formal instructional design background, and if faculty members asked me about it I deflected the questions. I knew I could pick it up on the job, just like I knew I could pick up teaching multi-age groups French Social Studies, or Music in French to Grade Five: It was the quintessential beginning teacher experience.

I blithely proceeded through the whole flowcharting process as though I were taking a snapshot of the scene after each teacher decision. This process was, really, the instructional design process; as I planned each event, each subsequent response seemed to spring out of my teaching experience. Each decision I made seemed both compelled and compelling. I could literally see the scenes unfolding in my mind, where the students were seated, how the classroom looked, the ambient noise, the confrontation, everything. When we were on location, I would match the scene on the camera to the scene in my mind: Did it fit the story that was continuing to live itself out? In the next videodisc project, however, more than one inner eye was seeing the story. For "Classroom Management", a new kind of design team was emerging: we were a teacher/designer, a television teacher/professor, and, later, a drama teacher/graduate student. I was now not of the schools but of the Faculty, for whom my calling card of expertise was videodisc design. My own classroom management knowledge/experience was nested in my awakening to classroom realities that were constructed differently from mine, constructions that, as a designer, I would now anticipate and make happen. Born of the teaching family of my mother, of junior high school English teachers who met after school in my mother's home to seek new ways of being in their classrooms, I nestled into the junior high school classroom, I called members of my teaching family to help me tell a story of an adolescent in crisis--and Mary Neely came.

The Third Nest: The Story of Classroom Management

A New Design Team Family

Lea was one of the new design team members, a drama/French teacher at Hardisty Junior High School, and, like me, a graduate student of Doug Parker's. She too, was interested in how teachers and their students come to construct the story of their classroom family. A member of Doug Parker's family of graduate students of French, she was at the same time a member of the drama teachers' family, of which Mary Neely was also a long-time member. And so, Lea's teaching and social and personal private lives were nested with Mary's, were nested with mine. We began to compose the story of Susan, a teenage

girl miserable with the untangling nests of her life, a father who has lost his job, a mother gone back to work, a little brother to care for after school, a volleyball team with whom she can no longer practice, friends who miss her company after school, falling grades; of you, her teacher; and of the Assistant Principal, Mary, who is trying to help Susan and you and the members of her school family to live within the rhythms and nests of school life.

Mary was a Drama Consultant, a Drama teacher, an actor, an Instructional Processes Consultant with EPS, a classroom manager, and a member of my mother's teaching family. And so she came to Hardisty and became the Assistant Principal at Susan's school, trying to help Susan's teacher think of ways to help Susan. In doing so, Mary began to build another nest in this story, a nest of Instructional Processes Consultants' stories within the nest of collaborative activities being constructed by the Faculty of Education and EPS; that is, the Department of Secondary Education, the Instructional Technology Centre and Instructional Processes.

One day, when the videodisc "Classroom Management " was done, Mary called a group together to talk about how we could compose another teaching story for our families, that is, how we could compose a teaching story for the preservice teachers who would soon become members of the inservice family of EPS. We came together one afternoon, consultants, faculty members, administrators, teacher/designers: It was the first of many conversations about the transformations of beginning teachers into teachers, and how members of the teaching family of consultants, faculty members, administrators, and teacher/designers help that happen. The QDisc project was born.

Louise Joins the Family

Louise tells the story of QDisc as beginning in a round table discussion, coming out of the general feeling of support for collaborative projects with the Faculty. In her account, Louise attributes agency of the meeting to Bob Holmes, her supervisor in Instructional Processes. Bob's involvement as an expert Elementary principal in the development of a principalship simulation for the Department of Educational Administration[2], nests his story as an educator/partner within the story of collaborative teacher education being composed at this time by the Faculty and EPS. In initiating this conversation, Bob Holmes may have

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2 "Project Decide" is the first of a series of videodisc-based principalship simulations developed by David Mappin of the Instructional Technology Centre, and William Maynes and Gordon MacIntosh of the Department of Educational Administration. The content of the simulations was developed collaboratively with school administrators from several local districts, including Bob Holmes, who met many times to share stories of the principalship.

been anticipating a model in which one or several EPS consultants would deposit funds in the joint account of teaching stories, to be withdrawn later by me, the teacher/designer. This was to be a short story, with a simple plot line (questioning), good characterization (question-asking experts from teaching improvement organizations), and a happy ending (interinstitutional collaboration works!). Louise recalls that the Faculty initiated the project, with questioning as the content focus, derived from an equitable free-wheeling exchange of topic ideas:

> ... in that very same conversation, we started to talk about, "Well, if we were to do a third disc, what are some things that would interest you? You know, as people working with preservice, or inservice teachers?" And we brainstormed, and one of the ones that [was] picked up on, and I remember it was my suggestion, it was the questioning (Louise, 1993, April 15).

In telling the story of the birth of the QDisc project Louise begins to reveal her nests of knowing in her consulting family, nests that we will explore as they continue to nest into the stories of the makers of the questioning disc. Louise is chosen to represent EPS not simply because it is her turn to take on a new project, but because she intuitively knows how to work caringly with teachers' needs, works a great deal, in fact, with Teachers-in-Crisis, and yet does not claim interpersonal competence as her exclusive domain. At the same time, Louise is aware of her professional value, and is immediately committed to the personal and professional value of this project, which she underlines by demanding release time, "They weren't talking release time at all. And I said, 'Look, here's my schedule this year. How can I put this in?' And so we figured that out" (Louise, 1993, April 15).

How are collaborative processes born? A well-defined, carefully-resourced instructional design project, with all the related elements of controlled accountability negotiated and put in place, instead became for its creators an end in itself, a process that was the product, and a story that continues to be constructed five years later.

Al and Contested Memories

Al tells a very different story, a story of non-resistance in the face of manipulation. He recalls that he was approached later, in a separate meeting:

> And that first meeting is very fuzzy .... I remember that somehow we got around to questioning, and I thought, that working with the Phase II classes at that time, questioning would fit very well with our agenda. But I remember that there was a meeting .... Then the next one that I remember was the meeting that we had at Tin

> Palace [a restaurant)]. It was still under construction, or still subject to definition at that point, right? (Al, 1993, April 15).

At this luncheon meeting, the project has already been defined by other agents. Although he laughs, Al is later very surprised to find that while he was invested with authority as the Faculty's content expert, the story had already been sketched out by others:

> Now, this is the meeting that you were talking about and I didn't realize what was going on ... No, I mean, sometimes it's very subtle .... That questioning should be the theme was important in your meeting, okay? Now, the meeting that I was in occurred after that, I'm quite certain, and it was like questioning arose in that meeting ... and I thought I had some part in it (Al, 1993, April 15).

And we laughed. But every family has these sacred stories to tell (Crites, 1971), apocryphal myths that in their ritualized telling invoke shared memory and meaning. One of our sacred stories of collaboration was that our knowing and making of the QDisc was so nested that we could no longer remember who had the idea, who made the meaning. But when we tell some of <u>our</u> sacred stories, we find that there are many ways to tell and understand the meanings (Campbell, 1994). Louise uses humor to both legitimate Al's feelings and at the same time, denies her exclusive knowing by suggesting that perhaps her memory is faulty, perhaps the topic of questioning was not decided before Al became involved:

> I do remember brainstorming it, in that group. People sort of saying "Well, what are some things we can do?" And questioning I know was one, and maybe there was no closure brought to that, in that meeting .... But in some way, that thread continued. And here you were feeling ownership of that! Another good idea I didn't have! (Louise, 1993, April 15).

In this case, how can a collaborative process be conceived out of a dishonest start? In our QDisc family, the institutional authorities, administrators at EPS and in the Faculty of Education, started building some nests for us. And so did Mary Neely, Louise's colleague in Instructional Processes at EPS, a member of my mother's teaching family, a friend I could call on to play the Assistant Principal in "Classroom Management", the link between our families and the instigator of the third videodisc project which became the QDisc.

<u>The Fourth Nest: Collaborative Beginnings</u>

Sometimes, the conception of a collaborative process can be seen as coincidental, haphazard, benign--a happy circumstantial nesting of contexts and availabilities. Other

projects, with other agents, can be intentional; deliberative. And still others, like the QDisc project, can evolve from motives of institutional accountability and authority, but become intentional and purposeful in their composition and living out.

It seems that the QDisc project was authorized as an activity within a nest of activities that were rightly undertaken, given the culture of the Faculty and of EPS, but the institutional intention was clear, that is, within one year (because teaching assignments change) deliver a Level II interactive videodisc on questioning that will complement the existing discs and course syllabi; and will fit into the inservice program in Instructional Processes; and, as a byproduct, lead to an ongoing relationship between the Faculty of Education and EPS. However, the intentional selection of team members thought to be interpersonally skilled led to the synergy of the family of QDisc-makers who, almost from the beginning, understood the collaborative process to be the product, and the videodisc to be simply the given artifact of that process.

Looking for motives of institutional accountability, I asked the question "Why you?" of the Qdisc-makers. Al explored his instrumental motives in becoming involved in the project, allowing himself to be selected, and agreeing that his contribution would make sense in this context. However, Al does not firmly acknowledge either his high academic status in his department, as Professor of Mathematics, or his personal values of intellectual and technical curiosity, values of intrepidness, can-do-ness, and loyalty and trust and growth in work groups:

> Well, I presume that I was originally invited because I was the Coordinator of Phase II [practicum]. At least, that was my thinking at the time. But I remember being given a choice, about whether or not I wanted to be involved. And I mean, I had an interest and I guess I was also intrigued with what I thought were these kinds of very technical design models. And I thought that those things existed and that that was something that .... I needed to explore" (Al, 1993, April 15).

This excerpt reveals part of Al's story in the University context, that is, he admits that he was initially uncomfortable when the expected systematic model was not revealed to him, but decides to wait out his tension.

Al begins to question whether the conversation-based process of the design is not, in fact, quite compatible with his own teaching praxis, in which he is quite willing to suspend belief in rational models of mathematical reasoning and legitimate the intuitive knowing of his students. He realizes that from the outside, as a non-participant, instructional development projects appear to be "a very rational , linear, technical process

that leads to production" (Al, 1993, April 15), but retrospectively acknowledges a very different experience that fits more comfortably with his style, "But I can remember you would come in with some next step for us to do. I can remember being very impressed with you, with all this technology, and then I find out ...." (Al, 1993, April 15). We can now all laugh at the thought that I would know how a conversation-based process would unfold every step of the way.

This exemplifies, for me, the shift in believing that videodisc product design was the real work of the group, to believing that the design would be born of the work of talking and listening and laughing around the table, work of the family. Again it is Al who highlights a sacred story of our family--a story told in the family will not be told to outsiders--an assumption not taken-for-granted in University working groups, where "you can depend on getting an ideology" (Al, 1993, April 15). The important thing, for him, was finding it necessary:

> ... to trust people that I'm working with. Trust is a big term in a sense, but I guess part of it is loyalty, part of it is there won't be any surprises. I've thought about that over time and why this team worked well for me .... I find it very difficult to work with somebody that I don't completely trust. I'm very sensitive to that (Al, 1993, April 15).

Stories of loyalty and trust and safety within the nest of the family: these are not the stories of institutional authority. By becoming a family, we were subverting the broader loyalties, or accountabilities, due our matchmakers. Louise, who in her every action embodies her professional loyalty to her teaching family of EPS, is able to reconcile nested loyalties, but the institutional authorities demand transcendent loyalties. They remind me constantly of my first duty, to "remember who you're representing", as though I would somehow betray the agenda of preservice teacher education by engaging in a collaborative project with school practitioners. What happens when four people are brought together out of different families, but are nested together by their shared experiences, their shared ancestry, their shared purposes, members of other families that they know and care about? They transform each other and the projects that they undertake are themselves transformed by their melding and nesting together.

Roy's Nests in Other Families

"Classroom Management: A Case Study Approach", was the second Level II videodisc developed for Secondary Education. Douglas J. Engel, a television teacher/researcher, and Associate Professor in the Educational Media program, and I were

the designers and tellers of the story of Susan-in-crisis, and of how the beginning teacher can be folded into a caring teaching family by Mary, the Assistant Principal (our story is told in Engel & Campbell-Bonar, 1988). Roy's story is nested into Doug's story, as Roy, television/drama teacher at a Fine Arts high school in Edmonton, came to the Faculty one year to work on a Master's degree in Secondary Education: Doug was his advisor.

Roy's story becomes nested with mine, as one day Doug asked me to take Roy into an independent study, into the instructional design family of which I was now a member. Again the intention, to learn interactive videodisc design models in working practice with an expert, was subverted by the purposes to which we put the process, the sustaining of the family of the QDisc-makers.

When we first came back together in a research process, that echoed the design process in a series of transformative, collaborative conversations, Roy reminded me that his knowing-about group process, from his work with drama students, was nested with his knowing-about the relational obligations of being a member of the family of the QDisc-makers. He reminds us that as a unique family member he had an important job to do, which he enacted by keeping a meeting journal. Roy, like Louise, denies that he was the only person who could have done this. I have come to think of this group denial of special personal expertise as being part of the intentional work of a family in creating an inside space for family members. In a collaborative ethic of modesty, all family members share meaning through shared work, and the meaning that is made through the sharing of the work is invoked again and again by coming together to celebrate the shared history of the family. Roy describes this relational obligation in terms of continuity over time and space: "It continues on from the last moment that you saw someone. That's the way I feel about the group, that we established those friendships and so that every time we met and re-met, it was the next day" (Roy, 1993, March 18). Louise and Roy credit me with intentionally establishing this model of finding out together: "I think it was very skillfully designed by you, to give us the entree, to come together. I think it was a very conscious decision on your part <u>not</u> to say, 'I'm the only designer in this group.'" (Louise, 1993, March 18). But I remember fearing that they would find me out as not-knowing how to use the instructional design models. Roy's admiration of my openness to innovation is in fact my success at hiding my inexpertness:

> You said "I don't know what design model we're going to use", and I can remember you talking to me sometimes when we'd be sitting down there doing this thing: "I don't have the design model yet, I still don't know what the model is for

> the design." And I thought it was really neat that you could go in like that. I had, in my own mind, ideas from the stuff I was playing with ... (Roy, 1993, March 18).

Roy remembers this story differently, I think, because our stories of instructional design were becoming nested, inseparable from the making of the QDisc. Roy came as a graduate student, status-poor, in his "poor little Master's student, poor sister" (Roy, 1993, March 18) view, to an already established family with calling cards of expertise. In this group, he thought, his superior technical expertise would not be a high-status calling card. At the same time, I was being denied my teaching expertise and my academic expertise by virtue of my membership in the family of educational technology ("She's just a technician.") even though I was expected to lead an interinstitutional collaborative team in reconciling both, while guiding the learning and doing of a new member in these nested families. Being solely responsible for the learnings of new family members, while being denied the authority is, I think, a common experience of women in the family. Roy admired my taken-for-granted authority as mother/teacher:

> And I would see us moving along, going through certain processes, and putting closure to some of those processes, and reopening them, reexamining them. But, I don't think it was you standing up at the board and going through one. You worked with us as a group. And you allowed us to work as a group (Roy, 1993, March 18).

I know that I felt no authority whatsoever.

A recurring story for Roy, and for all of us, is the shared story of denying special authority, because to claim authority would make outsiders of those without it. In the telling of this story, the timing of the joining of the family may appear to be important, but it is more truly the manner of the joining that is important. In the story of the QDisc-makers, we became more a family in the social milieu of mealtime--forming over lunch at an Edmonton restaurant, reforming as a changing family over breakfast, and reconnecting at each other's dinner tables. Roy felt "completely part of the group" (Roy, 1993, May 20) for the first time after our breakfast meeting. Sharing mealtimes is part of the essential work of nestling into the family. But at the same time, the intentionally social milieu of the collaborative family may be feared to be undermining and subverting the authority of the institution. At one point I was asked if the process was becoming something unintended, whether I was "enjoying (myself) too much." (Katy, 1993, April 15), and if the family work of creating insiders was forcing others out. Later, this was to

become a tensionality that almost destroyed the family[3]. At the very least , I realized that the cohesiveness of our group was jealously regarded by the institution:

> We were really doing something that we were obviously looking forward to doing and having a lot of fun at. That is not the situation for everybody else that works here. They don't get to have fun. You're productive, you know. Don't waste a minute. And, a collaborative group may be an incredibly ... we were really tight in that sense. And it was very self-actualizing for everybody in it. But it's probably very exclusionary for other people .... and it might not be a positive thing to have in your work environment, necessarily ... because it causes others to feel excluded (Katy, 1993, April 15).

The Fifth Nest: Narrative Threads in the Making of the QDisc

There were four members of this new, blended family of videodisc-makers, all askers of questions, all members of other teaching families, all now videodisc-makers. The rest of this narrative tells how the nested knowing-about teaching, about asking questions, about being in teaching families, became transformed into the instructional story "Do I Ask Effective Questions?". In the telling, we find out who we are in each other's accounts, and who we became in the story of the QDisc-makers. As with the oral and written histories of all families, there are many more stories than are possible to recount in this one telling. They can be told different ways and for different purposes, too. Accounts of design praxis are also accounts of tensionality in the collaborative process. But the stories we choose to tell here about the making of the QDisc are for us among the strongest narrative twigs that bind the nests together. Although they are told here as single plot lines, they nest together and grow into each other and become indistinguishable from each other in the recounting of the collaborative design story.

These are the narrative threads that seemed resonant to us as we came back together as the family of the QDisc-makers to remember how we made a videodisc, and why that time remains with us as one of personal and professional grace. They are really plot lines explored from the personal, transformative meaning that each had for our continuing practice as teachers and consultants and instructional planners and administrators. These plot lines emerged in the research conversation as the plot lines for the videodisc emerged in the design conversations--told by one, picked up by the others, woven into personal stories and retold, thoughtfully, aloud, until the story became our story, until we had all

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3 The stories of tensionalities are told in the fourth paper, "Tensionalities in the Collaborative Process".

learned the story of the Making of the QDisc.

Narrative Thread #1: Having Too Much Fun

Humor was a design tool, and also a design artifact. The humor embodied in the instructional plan of the disc is, in essence, reflective of who we are in the classroom, within our families, and as collaborative design partners. Humor as a personal style is at once who people are and how people engage with other people in their worlds. It is more than a tool of conversation, or an artifact of language, it is an intentional way of being in caring relation with others. The intentional use of humor in the instructional plan reflects its purposeful use in the collaborative design process, which in turn is reflexive of the intentionality of humor in teaching praxis. Yet, at the same time, good humor as a design act was seen to subvert the authority of the institution and, from that view, the instructional product--the videodisc.

For me, the use of humor in my teaching practice was a way to bring children into my world of the learning-of-French-as-a-political-act. This was serious business that was fearfully public in its enacting. Laughter seemed to smooth the tensions of children used to the ease of fluency. However, even in the teaching of a looser subject--a subject expected to be noisy, busy, and actively engaging--the culture of the school, learned by living in classrooms as a student, and managing classrooms as a teacher, was seemingly subverted by the sounds of laughter. Early childhood teachers receive the same message: if you're having fun, you're not doing real work. In the collaborative design process, we intentionally chose to not only have fun during the process but embody fun for the future teacher/user in the plan. That is, we will have fun making this, and you will have fun using it.

Louise remembers the humor of the design meetings as translating directly to the design itself:

> I don't think you see the humor in other videodisc packages .... I've never seen the humor that we have in ours. You know when you were saying, Roy, "How much were we products of the disc, and vice versa?"? I think part of the reason the four of us worked so well is every single one of us had a really good, strong sense of humor. I'm not saying the same sense of humor, necessarily, but a real sense of humor. And it came through in the disc as well, which is interesting (Louise, 1993, March 18).

In so doing we reject the sacred story of teaching as deadly serious business:

> And it's back to the question of we're having too much fun. You know, there's a

> lot of research that says you are at your most creative when you're relaxed and happy, and bouncing ideas off each other. One of the things I remember Katy saying, when I'd suggest tying someone to a railroad track and putting a serial question in their mouth, was, "We can do anything we want." So, I think that was part of it. Roy, you said earlier that we were enablers, not blockers. We weren't saying to each other, "Well, good idea, but, you know, we've only got thirty minutes, thirty minutes is going to pass really quickly, and you know, it's an expensive thing, da-da-da." We didn't do that. (Louise,1993, March 18).

Humor is an enabler of creativity, of learning, of sharing experience. Humor is also a design tool, making it safe to be inexpert, coaxing out wild and frivolous ideas, and building a culture of irresistibility. We celebrate humor in the instructional plan of the videodisc in many places, in the title, the host's commentary, in the ways we played with language and the ways we represented instructional concepts. Humor was a way into the story of the making of the QDisc. During the time that we reconnected to collaboratively compose the story of the story of the making of the QDisc, Roy had his first opportunity to see and work through the completed videodisc. On this occasion, Roy's first forays were a search for the humor he knew was there: "Are our pictures at the end of this disc? I've never seen the credits. Do we have credits? ... Oh, I thought that at the end there would be .... I didn't know where the humor left off ... and I just wanted to see (Roy, 1993, May 10).

As with many families, humor was our meaning-system, it never left off. Each of us is funny, but more than that, each of us is skilled at invoking humor as a way of reconnecting; as content and process; as a way of nurturing, of mothering; and as a language, a tool, a design strategy.

Narrative Thread #2: Getting the Gestalt

Humor is part of the language of the family, and is embodied in the instructional language of the disc. Creating the special language of the QDisc family was an intentional act of meaning-making that, in its invocation, immediately re-places us in the story of the making of the disc. For example,we quickly came to identify when we were designing [talking] with and using "considered language"--the language of academe, the language of political correctness, of non-combativeness--that is, weasel words. First named by Roy, weasel words became a code for not taking a moral stand, and during our narrative conversations immediately transported us back to the design process. Louise remembers how we deliberately built the language of the family:

> It's interesting how we developed a language: "technofear" was one,"get the gestalt" .... It was body language too. We'd all sort of rise, wordlessly, and go off to the washrooms, together .... But, you know, we built that kind of language. I mean, it's like little kids and pig latin, right? It makes you close (Louise, 1993, March 18).

Roy relates the design process to the socialization work of the family, that is, developing and teaching meaning systems to new family members. In doing so he identifies new learnings as an integral part of the product of the collaborative process:

> Within the design process there has to be an education. There must be. And existing models, the ones that I researched, do not account for that at all. They look at that straight function. There was not a period of education for the various things. I was being educated on questioning, I was being educated on spelling and relationships, too .... Each and every person was getting an education, as well as that closeness that was or had to be arrived at, that added to the commitment and the ability for the design to carry on. If, at one point, had this not happened, would the design have stopped (Roy, 1993, March 18)?

Instructional design, as a field, and a way of acting, has a meaning system and a shared language that, as Louise points out, "makes you close". Our task, as the family of QDisc-makers, was to make our personally constructed meaning systems into a shared meaning system, embodied in our language of design. We believe that in failing to undertake this work, traditional design models and group processes result in products that are fundamentally alienating in their conception and function. Our very deliberate reconstruction of a language of teaching/design makes our story ring true, because it was the story that we worked to live and tell in the videodisc.

Narrative Thread #3: Technofear

The family is a social group that buffers its members against a fierce and anxious world. Each of us in the QDisc family brought to the process a set of fears and feared inadequacies, each of us secretly feared that a lack of expertise would reveal us as an impostor and contribute to a breaking apart of the nesting of knowing in progress. The question for me is how these fears became known, and were empowered as ways of working in the collaborative process and as elements of the instructional plan.

Louise and Roy remember how their areas of defensiveness became resolutions in the story, how they lost their fears in constructing, collaboratively, the collaborative process of design. Louise admits an area that she was defensive about, and suggests that

trusting each other enough to share these worries contributed to nesting into each other's lives that made collaborative work possible. She reminds Roy that he admitted, "I felt like the poor sister" (Roy, 1993, March 18), and points out that::

> ... for whatever reason, you were the lowly Master's student, or whatever it was. That's yours. Mine was very clear, it was ... (everyone says together) TECHNOFEAR!!!! Maybe that's really pivotal, is that there was a real area for each of us where we thought, "We've got a lot to learn here, too." And we couldn't take the posture of, "Well, here I am. I'm going to tell you three how it's going to be" (Louise, 1993, March 18).

From the beginning, Louise recognized that her technofear, or fear of not knowing either the design or the videodisc technologies, was an opportunity for her to come into the family of instructional design. Likewise, those of us in the family of instructional design were welcomed back into the family of teaching. At first, this was overt and intentional, and was enacted in the design process by reading and discussing technical models, examining many examples of videodisc technology, and learning the language of instructional design. Eventually "we all became expert at those things." (Louise, 1993, March 18).

But later, nesting into each other's knowings-about became part of the real intuitive work of the family, "that what we'll try to do is blend, and Roy and Katy will learn a lot about questioning, and Al and Louise will learn a lot about design" (Louise,1993, March 18). In the transformative sense, our fears and in-expertness became part of the instructional plan, as personal practical knowledge becomes part of the teacher's praxis. In the case of technofear, for example, the use of analogous icons to provide technical directions and instructional clues was a strategy deliberately designed to both reflect the users' developing knowledge of the language of questioning, and provide an easy way into Level II videodisc technology.

Roy refers to the navigability of the design when he asked me how good the disc was. When I replied that people seem to find it very transparent in its navigability, Roy continued, "I wonder if some of the nature of the user-friendliness of the disc comes out of the fact of Louise, and the sensitivity that she had to that aspect of entering the technology?" (Roy, 1993, March 18). Agreeing that her reluctance to approach the technology was a design catalyst in the conversation, Louise again relates our personal concern with making the fears of inexpertness "all right" for each other in the design process with our design praxis:

> Yeah, and that was one of the themes for me when we got to that end of it (the design), was, that was a refrain constantly for me .... So, in terms of everything we could have done, within that context, is it good? Yes! (Louise, 1993, March 18).

Similarly, the program logic was designed to guide users one step deeper into knowing-about questioning (or help them back out one step at a time), building constantly on what had come before, in a reflection of the skill-based learning of the languages of French and Mathematics. The fear of not-knowing-enough-about was anticipated in the inclusion of extending content menus, considering additional print-based activities as part of the design of the videodisc (linked by icons), and by encouraging in the design the active construction of possibilities of questioning praxis.

The embodiment of personal practical knowledge, including not knowing-about, or inexpertness, in the videodisc design was an acknowledgment of the atmosphere of safety empowering the family of collaborative QDisc-makers. At one point, Louise recalls how the design symbols that represent instructional events in a videodisc flowchart suddenly provided a link to understanding the design process, and a way to nest into the knowing of others:

> In the big picture, do you know what happened for me?... is when all of your little shapes, you know, your little ovals, and triangles made sense. When I understood that, I thought, "I got it!" And so then I felt that there was hope. You see, the fear was because of the technofear, could I be a productive member of this group?... Because I have loads of confidence in my abilities in some areas, but I had a real fear that I was one-fourth of a very talented group, and I was not going to be able to pull my weight (Louise, 1993, March 18).

Roy replies that not-knowing was never an issue of credibility in the process:

> The confidence by which you entered into this, and the willingness, (to say), "Just a second here, I don't understand this, I have some problems with this, help me through this." There was always someone from the team that would move the person through that point, to enable them. (Roy, 1993, March 18).

This exchange, I think, highlights a difference between collaborative work groups in which we see a caring family ethic that allows us to admit not-knowing from positions of strength, and traditional University work groups which punishes admissions of not-knowing as displays of weakness. In the collaborative process, not-knowing is a way of sharing the strength among each other. Louise describes how this generosity enables the

work of design:

> Near the beginning, a pivotal point for me was, the day we walked into the project room, and you said, to me, in front of everyone, "Louise, would you mind taking over the mind-mapping?" I had confidence that I could do it, I mean, I've done it in other situations, but can I do it for this purpose? And then we did it ... and we were humming along, and we were doing really important work. And I was very confident at that point, that we would be great. So I lost the fear pretty early ... not the technofear ... but the fear that I couldn't be productive. But, yeah, there were lots of times when I'd say, "You're losing me", rather than, "I'm afraid for me, to look bad, to look incompetent" (Louise, 1993, March 18).

Here, I think, Louise suggests a way in which we transform our own remembered fears of inexpertness into our knowing actions in the classroom, where, as in the family, we set places at the table for our students. At this table, as at the design table for QDisc, one is invited to sit and join the conversation merely by one's valued presence, and soon value can be self-authorized. In the above excerpt, Louise tells how her sense of her own knowing was surfaced by the value placed on her by the QDisc family. Sharing her confusion with Roy over the sudden video jumps (in response to menu choices) inherent in Level II technology, Louise talks confidently about design/technology decisions that make the first section of the disc (Instructional Use of Questions) less approachable to learners than the others:

> I remember the first few times I played with it I thought I'd touched the keypad, and suddenly it's gone. I know why we designed it and why it ended up that way, but it's not user-friendly. But, once you're in this, and you can begin to make choices .... That it's not sequential, and when you learn this, it's learned? I really like that, that it's complex, sophisticated (Louise, 1993, May 10).

In transforming her technofear into design praxis, Louise likewise sets a place at the table for her teaching family, the teachers with whom she is engaged, now, as a consultant; and for those whose engagement she anticipates.

Narrative Thread #4: Honoring Those we Cared For

Coming together to nest once again in the family of the QDisc-makers was an act of honoring one another. As we restoried the making of the QDisc, in the parallel process of collaborative conversations, we were reminded of how the instructional plan of the disc honors teachers and teaching. Honoring, a dimension of Nodding's (1986) caring, was enacted by bringing teachers we cared about to the process, and by telling their stories of

questioning in loving ways. The act of honoring was relived as we revisited this teaching family during the research process. Humor enables honoring. For us, honoring those we cared for once again reflects the real work of the collaborative process of the family of the QDisc-makers: a process of active valuing.

Revisiting the questioning sequences on the videodisc was a joyful process for us, as joyful as the making of the sequences in the classrooms of teachers we wished to honor. Browsing through program sequences and menu choices prompted the same feelings of delight as looking through the family albums, sharing remembered stories and catching up on the ongoing lives of the favorite characters in our family play. For example, as we explored the "Meet the Teachers" choice from the Main Menu, we shared what we knew now of their lives. Comments such as, "Judy keeps travelling. She's married to a doctor now. They do a ton of travelling. But she always did. Lori's at Daly Grove .... I think Carol's still there...." (Louise, 1993, May 10) exemplified how certain family members can always be counted on to be in touch with the lives of the others.

When we came together again to re-story the QDisc-making, we wondered why we had chosen certain teachers to represent the act of questioning. I remind Louise that she said she wanted to work with people whom she liked, and that meant honoring those who she knew were good teachers and who would be fun to work with, criteria that figured very prominently in her choices and therefore, becomes embodied in the design:

> We made a lot of decisions about people because we liked them. Because we respected what they could do, their abilities, but working with people we liked .... There were a lot of teachers I could have chosen, but I chose ones I liked. I chose ones with senses of humor .... I couldn't remember choosing them because I liked them, 'cause they were fun. But I did, clearly, when I look back on it now. Because we had to spend time with them (Louise, 1993, March 18).

In her choice of teachers to honor, Louise also reveals her own extra knowing about their classroom contexts, which makes it possible to believe in and defend every act as Good Teaching, whether the wait time seems a little skinny ("Grade Two Academic Challenge") or a questioning disability is seemingly repeated instead of being corrected ("Grade Four Math/Art"). In the following exchange, Louise also reveals her extra knowing-about design decisions, in particular the decision to use a French sequence, showcasing an exceptional teacher, Mary Broad, as a model for the "Act of Questioning", and nests this retrospective knowing into her knowing-about the consensual process of collaborative decision-making. Although Al often denies his own high-status calling card

of expertise as a Professor in Teacher Education and Coordinator of the Phase II practicum in Secondary Education, during this extended conversation his knowing-about the rhythm of question-asking is also acknowledged. We join the conversation as we are admiring Mary Broad's orchestration (1993, May 10):

K: Some people say, "Why did you demonstrate that (The Five Transactional Components) in French?" But it seems to me that it's really obvious what she's doing.

A: Yeah, I know. Nice rhythm. And that circle (a graphic of the model) helps, doesn't it?

L: And I really stand by that decision. I think it's okay, because what we were trying to show was ... K-12, second language. The point wasn't understanding the language.

A: It's better in French.

K: Her body language really shows what she's doing.

At this point, Roy suddenly raises a question that challenges the decision to use this particular example. This challenge becomes a question about consensus during the conversation:

> I agree with that question and the reason why ... is, in terms of our market, in the North American market, that is perhaps one of the key demonstrations [on this disc] of the process and the act of questioning ... the process of the circular movement across and down around [the graphic] .... But when you think, it is partially lost to the viewers that don't speak French, like myself. I would tend to agree with that question being asked. Unless it was going to Quebec (Roy, 1993, May 10).

Later, when we return to this story, Al nests his knowing-about into Louise's:

> No, I'm not that fluent in French. One of the things about having that sequence is that, for me, it forces me to concentrate on the orchestration that she uses. I think if she was speaking English I would probably start listening to the topic, or the content. But I'm forced to just pay attention to her act of questioning, and so the fact that it's French has never bothered me (Al, 1993, May 20).

Al's comment made the design decision palatable to Roy.

The story just told says something about the honoring of the teaching family of the QDisc, but it says even more, I think, about how we all actively valued each others' knowing-about; and how we worked deliberately to bring each other into the sacred stories and nests of meaning within our own family of collaborative instructional design. In this

sense, we did each other honor by creating a safe haven to which we could return time and again from institutional accountability. Al, in particular, contrasts the ethos of the two:

> The issue that was interesting for me was, in reflecting on this group, and then thinking of other work groups that I've been part of, this is a very positive working group. Louise, did you say at one point something about not having had an experience where you walked away and said, "Boy, that person really bugged me today?" I sort of resonated with that. And, certainly, I've been involved in a lot of work groups for which that would be the reaction (Al, 1993, April 15).

He describes one in which he is currently involved that seems:

> ... very disconcerting. I don't have a sense of where things are or where you are in connection with the rest of the group .... It's all very chaotic. Goodness knows, our work was very chaotic, but I had a sense of where the chaos was, or something (Al, 1993, April 15).

In exploring his image of work group as safe haven, Al brings to light an aspect of caring that he finds mostly absent on University committees--connectedness with the lives of colleagues:

> I don't how [connectedness] would emerge in that group. I mean, I can't imagine that it would .... I think one big reason is it's all male. I don't think you get those kinds of working relationships with males. I have a really difficult time with these people. You say, "Let's try something", and they'll give you five reasons why they can't, or five reasons why it'll fail .... I've thought about that over time and why this team worked well for me. I find it very difficult to work with somebody that I don't completely trust (Al, 1993, April 15).

These are aspects of being in caring relations with others, of being part of a loving family, a family of teachers and designers, the family of the makers of the QDisc.

Finally, Roy reminds us that, although we might have seemed undisciplined, our efforts to connect on a deeply personal basis each time we met affirmed that care for each other was essential to the real work of instructional design, "And it was like, everyday, we would start off with gossip, events that happened in your life, it was almost like a sharing process that reaffirmed where we left off the day before" (Roy, 1993, March 18). And yet, as Louise reminds us, "in terms of an agenda of things to do, we always got to what we needed to do" (Louise, 1993, March 18).

Narrative Thread #5: The Process as the Product

We came to the institutionally authorized project of the making of the QDisc

carrying the expectations of our institutional/professional families--the interinstitutional, team-based design and production of a Level II interactive videodisc on questioning strategies for pre and inservice teacher education. We came with personal expectations, too. Some of those we were consciously aware of--to learn more about technical design models, to put working models into practice, to learn more about questioning, to hang out with teaching colleagues; and to learn to do collaboration. Some, however, we had not yet awakened to--to work in a context of trust and loyalty, to build nests of knowing-about, to make a family with a public history and a possible future; to know collaboration. These last, these ways of knowing collaboration, became the work of the project.

We came to the making of the QDisc charged with the goals of institutional accountability. We charged ourselves, by publicly identifying a set of team process goals and by our own embodied commitment to the teaching family, to nurture a collaborative experience which would endure beyond the institutional boundaries of a project with instrumental, time-bounded authority. Both would yield a videodisc, maybe even the same videodisc. But, in choosing purposely to let the process be the living entity out of which products would be born, we chose to trust that the collaborative process was the agent of the act of design. What appeared to the institution to be aimless was quite deliberative. The careful way in which we sought consensus on design decisions, decisions which would become permanent witness to this process of collaboration, tells how embodied knowledge about teaching as consensus-making became the means for coming to know collaboration in our family.

In the following sequence, we return to the decision-making process that led to the choice of the French language exemplar, Mary Broad, to model the consensually-composed Act of Questioning[4]. Since Roy has raised the question of appropriateness, I ask him how he remembers us deciding to use this example, if he was so clearly opposed. Roy replies:

> It was one of those situations where looking over your shoulder, I was looking at the editing and the extra clips and asking questions about the production quality, and that, all of a sudden it struck me that I don't know what she's saying. We're on a questioning disc, we're going to an English-speaking majority, why did we choose that French segment? (Roy, 1993, May 10).

Al, ever-conciliatory, chooses to focus on the teaching process, rather than the content, enacted in this questioning sequence. In Al's worldview, meaning emerges from

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4 This sequence is also discussed in "Narrative Thread #4: Honoring Those we Cared For".

its cultural context:

> I was just thinking that part of that consensus-making, part of that decision-making took place when we were up in that little place (the editing suite) and Roy was spinning the dials on the machine and ... picking out sequences. I mean, there was a sense that this is what we have, so we have to .... Whatever we're going to make it's going to made out of this. And so, that became an important part of the decision-making (Al, 1993, May 20).

Roy refers to an earlier conversation (1993, May 10), during which he was working through the completed videodisc for the first time, and was concerned with what he saw as both technical and implementation issues. For Roy, a drama and television arts teacher, how future users see the questioning story visually unfold is inextricable from how they will understand and use the instructional story (how to ask good questions). I continue to pursue this idea of embodied knowing and believing as design decision with Roy, trying to understand how QDisc content, particularly, can not only not reflect a deeply held political view and moral stance, but actually seemingly deny them. What is interesting for me, now, is to see that in the restorying I do not admit that the moral view I am representing is also strongly my own. For example, we had a number of ways that we could represent the "Psychomotor Domain":

> ... and stagefighting was a quite intense conversation, because I remember saying at the time that I thought people like (a faculty member in Secondary Education) for instance, who's a peace educator, would really focus on the content rather than the process.... I mean the content for him would be a big deal there. How did we work through that (Katy, 1993, May 10)?

Roy does not remember a controversy, "We didn't really have very much else that we were looking at. And we were getting down to function .... function was to get the completeness of what we were looking for in the product. And function overcame controversy" (Roy, 1993, May 10). This is typical of our denial of unpleasant controversy during our first conversations, our first attempts to restory the process. In a parallel to the process of design as consensus, I try to find another, acceptable way to story this troublesome content decision, and in so doing, invoke one of the sacred stories of our family: the honoring of those we cared for:

> Maybe the other thing, there, to go back to the people on the disc and the idea of honoring certain people, there were people that we wanted to include, and what were they doing? Well, Robyn was doing Drama at the time. So, some decisions I

think may have been based more on, we want to have this person. That would be the major reason (Katy, 1993, May 10).

Although Roy and I have now found a comfortable way to reconcile our different stories, Louise tries on a new story, one which reflects her consulting, a story of finding the best instructional model:

> I remember when we did the psychomotor taxonomy, I'd talked about (a certain phys ed teacher), because he could have done some things for us in gymnastics. Somehow, we ended up with Robyn at Hardisty doing drama. What I do remember is a discussion about how many people would think of the psychomotor taxonomy as only applying to physical education. And we wanted to get away from that, which is why we didn't use something easy like phys ed. And I do remember that when we went to Hardisty and saw Robyn, and she'd put it together for us, I remember being really proud of her in terms of how well it worked .... It was very clear what those taxonomies were (Louise, 1993, May 10).

The story of the making of the QDisc is the story of the collaborative process of design. That is, this story about the making of consensual decisions, a story of the design process as the real work of the project, reflects how we were then enacting our personal professional knowledge and are now deliberately surfacing, examining, and echoing that process by coming to know collaboration.

The Sixth Nest: The Design as Personal Transformation

If the instructional design process was a process of coming to know collaboration, it must then have been a transformational process of coming to know ourselves. Certainly, we went away from each other into new challenges and new families, to new professional and personal lives; and we came together again, members of new families seeking to connect with the safe haven of the QDisc family. And each time we nested together again, two of us or three of us at a time, we confirmed that the making of the Questioning Disc was a time in which we had to "dig deep", because the work of collaboration demands no less.

If it were possible to name the transformations for each of us, I would return to the story of the story and these are the stories I would tell.

For Louise: Knowing-About Instructional Leadership

Louise came to the making of the QDisc as her institution's choice of collaborator: it was a calling card of expertise for this project. She tells us how knowing-about collaboration has transformed her knowing-about instructional leadership, as a school

principal:

> Is it something certain people seek?... I find that myself more and more, as I continue in my career, really thriving on collaboration. And I will go a long way to seek it out. This year we've had more collaborative team planning in school than we've ever had before. And I do take credit for some of that .... I make room for them to do it, and give them support like supply teacher time, and all of that. And I coach, and they coach .... There's something there, I think, for me to think about. Do certain kinds of people seek it out? (Louise, 1993, June 18).

Louise's knowing-about collaboration, highlighted in her administrative portfolio which she shared with me earlier this year, has obviously led to a new transformation for her, from leadership in a specific school to leadership at the district level. At the time of writing Louise had recently been appointed a Principal-at-Large, a constantly evolving position in which individuals enact their collaborative skills at the school levels, working with teachers and administrators; the district level, working with Associate Superintendents and other senior administrators and curriculum leaders; and at the public level, in provincial committees, on professional associations, and in practicum programs planned collaboratively with the Faculty of Education.

For Louise, knowing-about collaboration nests with knowing-about creativity, and knowing-about developmental change, which are embodied in her praxis. Together, these enabled the design process. Here, she continues to nest these knowings by telling the story of the introduction to EPS teachers of a proposed Alternative Practicum[5]:

> We had information shared with us at an elementary principal's meeting so then principals went back to staff and said "Look, here's an opportunity, you know, what do we think?" Because it's not just the two or three teachers on your staff who may be interested, but it's a school commitment, to make them fly, and make it really a successful experience for the people who come to your school for that period of time (Louise, 1993, May 10).

Seeking collaborative opportunities as growth experiences, Louise is embarrassed at the reaction of teachers who view the same activities as a further encroachment on their burdened time. After Al speculates that an Alternative Practicum might be one more

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5 This proposed practicum is a collaboratively planned, two-year program of on-site teacher education. The partners include teachers and administrators from Edmonton Public Schools, and faculty members from the Departments of Elementary Education and Educational Administration, Jean Clandinin and Julia Ellis, and William Maynes, respectively.

"professional development activity, that just has to be endured" (Al, 1993, May 10), Louise replies:

> ... but I think there are other people who are in the room who were saying, "Wow. I would kill to be involved with this." And as a teacher, I would have loved the opportunity to work with a student teacher that way. It would be wonderful. And then there were some fair questions, I think, like, "What happens if you get someone who you're not going to mesh with?" And the answer was exactly what I expected, which was, "We'll work it out. I mean, no one needs to fail, we can figure those things out".... But, they just didn't get it. And, well, my overwhelming sense is, as I say, one of embarrassment" (Louise, 1993, May 10).

After being a QDisc-maker, Louise "gets it." And now, reflecting on that year and on how her own practice has been transformed:

> It says something to me about planning and collaboration. Because it's a collaborative EPS/U of A project. And, one of the points that they were making before presenting this project, was, that if we came here and told you everything about it, that would not be collaborative. Get it? You know, we want you to have a voice in how this is going to evolve .... I think that collaboration, when I think of it, is creative. It's largely creative (Louise, 1993, May 10).

Louise has come to consciously value collaboration as the agent of her knowing-about instructional leadership. Of course, Louise embodied this knowing-about in her praxis as a teacher in an open-area classroom with Mary Broad, as an designate when her school principal was absent; and as a consultant with Instructional Processes, but the making of the QDisc brought it into conscious knowing. Louise continues to practice her knowing-about collaboration in leadership activities, for example, by representing EPS at the Vanderbilt Principal's Institute in 1992.

For Al: Consistent Curiosity

Of the four of us, Al has been the only one to stay put since the completion of the making of the QDisc. Sometimes he talks cynically about the short time left to early retirement as allowing him to finally take risks in his academic career[6] In fact, within a more bounded context, that of Professor in the University, Al has always approached risky projects and issues, the making of the QDisc being one, the functions of University Discipline Officer being another; taking on an innovative, telecommunications-based

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6 As of July, 1994, Al has retired.

practicum project is a third; as is working in collaborative, non-evaluative ways with student teachers. He describes a consistent theme woven into these endeavors, his knowing-about trust and commitment, with the qualities that he now acknowledges to bring him into a working family:

> I think one of the things that was important to me was a kind of loyalty to the group. And, so opting out of it as a member of the group wasn't thinkable. And I mentioned last time that one of the things that I really appreciated about the group and I appreciate about the individuals in this group is this sense of loyalty to each other. And that's important to me .... (Al, 1993, April 22)

With Louise, he values the ways of weaving personal humor into both the design practice and the design story:

> ... I think all four of us are serious about teaching. And yet, all four of us share a sense of life as being somehow a little absurd. And so there's that kind of playoff. And, you're right, there are a lot of people who don't have the sense .... I sort of gravitate towards people who share a sense of life as being a little absurd .... Because none of us take ourselves all that seriously, that's always been important for me ...we sort of punctuate episodes (in the design, in the instructional plan) with playfulness (Al, 1993, June 18).

Al sums up a personal transformation as now owning a more sharply defined sense, or knowing-about, collaboration in the Faculty context, a knowing-about that will authorize a calling card of expertise, or a passport into the school context:

> This whole area of collaboration sort of assumed a sort of faddish status at one point, where it was a big thing, and still is, in our faculty .... I sort of pull back naturally from it because we've gone through a lot of these kinds of fads. But, over time, I changed my view of collaboration, and have gotten through all of the talk about it, and so on to the authentic parts of collaboration (Al, 1993, June 18).

Al's knowing-about collaboration confirms his consistent curiosity[7], that is, legitimates his way of being in relation to his work and his daily personal and professional relationships:

> I was interested [Louise] in your talking about your increasing use of collaboration

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7 I am grateful to Dr. Sharon Jamieson for this turn of phrase.

> and why that is. And then that goes back to [a story of tensionality[8]] because you were asking some of these big questions, like, "In a collaborative project like this, is it necessary to have [production personnel] on the same page as we are?" And it was interesting to read through the conversation that we had, and I don't know if we resolved anything there, but it did more sharply define the issues of collaboration. And I suppose that in the educational uses of technology, collaboration is essential. I'm just writing this thing about the use of the VISIT (Campbell-Bonar, Jamieson, & Olson, 1994), and the possibility of tying schools into the library, and I was thinking how could you do that unless the people in the library and the people in the schools shared the same vision, and shared the same agenda, and that has to be the nature of collaboration, otherwise you're just going to miss it (Al, 1993, June 18).

For Roy: Knowing-about Team

Roy came to the QDisc project with a team process calling card. As a drama and television arts teacher he was very skilled at working with creative individuals who did not always share the same vision. During the making of the QDisc he initially declared himself as the arbiter of interpersonal communications as he kept a journal in which to check perceptions, videotaped the emerging content/mind map; and sought verbal clarification in conversation/design. At the same time, Roy was nesting his own team praxis, as a teacher, a director, an actor, a stage manager, and a producer, into the process of QDisc-making and finding it somehow incomplete. Roy shares his awakening to the sacred story in Drama of Team, and how he comes to re-story that in the context of collaborative design:

> ... that was the team thing that was always going on. And I saw what was going on in other places, that worked, or were what they considered to be Team, and then I had my sabbatical where I did finally experience, for the most part, Team. And Team does work. But what we had is, we had openness, we had honesty, we had sharing, we had trust, we had all of these factors going on, plus, we had shared credit. And that is the idea of teamwork. And, if you look at the idea of outside enemy, or just the outside person who would not agree to what we had already agreed to, then we just clustered together. And then we just kept moving... (Roy, 1993, April 22).

Roy describes how he nests his knowing-about team work, that is, what it requires

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8 See the fifth paper, "Tensionalities in the Collaborative Process".

of its participants, with his awakening to the different requirements of the collaborative family, one being the issue of personal allegiance:

> I was watching very much for hidden agendas. Watching, because I was watching three different spheres .... And when I was watching the disc take place, there were agendas that were there. People put them on the table and said, "Look, this is what's going on. Edmonton Public would want and must have this proper symbol ..." so you make sure that it's there. And yet, there was that other part, a larger part of the person, that represented what they wanted for quality in the disc. And it's only when something hit their sphere that they were by their employer or whoever it would be the other portion of the agenda would arise, but it would arise within the context of the trust and faith that we had in the group .... If I was to look at it, in terms of an alliance, how I felt, my alliance and my allegiance was not to Edmonton Public School Board, it was to Katy (Roy, 1993, March 18).

Soon after returning to EPS, Roy sought out curriculum leadership as the next personal stage of growth. He talks now about nesting his knowing-about the collaborative process with his coming to know about school leadership, and once again reveals his meaning system of loyalty to and alliance with his teaching/school family. Louise has just described a meeting with teachers and faculty members in which the alternative, collaboratively-designed practicum is proposed. Roy is exploring his own transformed leadership praxis when he cautions:

> The workload is something that you have to be aware of, and the people that go into it have to be aware of it, but the benefits that come out of it! How often have these people had a chance to sit down and clarify the art of teaching to someone? And then there's always people that can't work collaboratively and you can get them to give their strengths so that you have a bunch of them together and they do collaborate, but they're all working as independent pieces, and then that person is sort of a manipulator of that. I see that with being a principal, you know, when a principal gets into a school where everyone has their doors closed. And the principal comes in and opens the doors in that school. And gets people networking with each other, making a collaboration of that school ... It just depends on the nature of the person who is getting them to that work (Roy, 1993, May 10).

Roy now sees himself as the person who can help that happen at a high school to which he has applied for a position of curriculum leadership in Social Studies:

> The more time I spend thinking about what I could possibly do there .... Because

> my basic belief is that when you go into a school or into a department that there are an awful lot more things being done right than there are being done wrong ... and bringing that forward to recognition. The head's going about where this stuff can go and what you can start doing and being able to work with a team. 'Cause even with my role right now I don't feel that I get to work with a team. I'm supporting the person that's doing the team work. (Roy, 1993, May 20).

Finally, Roy is considering issues of gender in school families, as a direct result of coming to know-about the masculine use of language as power that Louise and I live every day. After reading a tentative chapter outline for one of my papers, Roy asks, "Is it that noticeable to you, whether you're working with men, or women? Wow... I've never .... Is it, Louise? Yes? I feel like an ostrich" (Roy, 1993, June 18), and throughout the remainder of this conversation explores incidents when he may unwittingly have been guilty of this.

For Katy: Confirmation for Collaborative Knowing

For me the work of the project was both transformational and confirmational--transformational in that I was able to reconnect with my teaching family, and confirmational in that my own nests of knowing-about were finally legitimized within my design praxis. For example, in a fourth videodisc instructional design project, "Teaching Strategies: a Sampler" , I prevailed in my content decisions in the face of determined opposition from an institutional authority because I knew that the teaching sequences identified were authentic and representative of the range of teaching ways available to our preservice clients. And again, in a fifth project, "Key Teaching Behaviors in Post-Secondary Education: Exemplars of Effective Teaching", I unapologetically insisted that my own teaching skill be legitimated as both design practice and content expertise.

In this story, my story of personal transformation, I have suggested images of collaboration and instructional design which are nested together, and are inseparable from my knowing-about teaching and being in teaching families, that make it possible for me to be the teacher I am. The teacher/instructional designer/collaborator I am: a woman from a family of women in education; a member of my mother's teaching family in EPS; an instructional planner, an imaginer of instructional possibilities, raised with the image of women planning joyfully and humorously in a social milieu. These are the images which I embody in my instructional design praxis, in the family of the Instructional Technology Centre, and which I bring to the collaborative process of QDisc-making.

Stories Lives Tell

This account began with the authority of autobiography and personal practical knowledge in the life of a teacher. The telling of our lives, the sharing of our histories, the nesting of our stories with the stories of those with whom we engage in the work of educational enterprise, emerges in new, communal stories that inform our praxis again and again in other settings and with other people. This process of collaborative instructional design, one of trusting, profound conversation that is transformed into an instructional plan, shows how the lives of the designers are the content with which personal connections are made that inform future action.

Clandinin and Connelly (1991) talk about the process of storying and restorying a group or cultural story as a "fundamental method of personal and social growth .... a fundamental quality of education" (p. 259). I wanted to show that the collaborative instructional design process is developmental in nature, that is, it encourages the transformation of personal, embodied knowledge--about teaching, about learning, about being in caring relations with others--into the social milieu of the design process, a process of nesting knowing through reflective conversation.

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PAPER FOUR

INSTRUCTIONAL DESIGN AS COLLABORATIVE CONVERSATION

> Constructivists make a distinction between "really talking" and what they consider to be didactic talk in which the speaker's intention is to hold forth rather than to share ideas .... "Really talking" requires careful listening .... reaches deep into the experience of each participant; it also draws on the analytical abilities of each. Conversation, as constructivists describe it, includes discourse and exploration, talking and listening, questions, argument, speculation, and sharing.
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> From "Women's Ways of Knowing", 1986, p. 144.

Instructional design processes, as practiced by interdisciplinary teams of content experts, instructional designers, and production personnel, have been systematic in their conception and undertaking. Typically, an instructional designer will work with a model designed to extract relevant content information, match it to specified learning outcomes, determine its treatment, and finally hand it over to television producers, graphic artists, and computer programmers to interpret and realize in reproducible form. This systematic model is, ultimately, functionally impersonal: The many meaning systems, the personal practical knowledge of the makers of these instructional forms, are unauthorized by the process which is supposed to be rational and impartial and certainly not intuitive. Yet an instructional design process that was created in the meaning systems and intuitive knowing of its workers resulted in just such a reproducible product, a videodisc. This disc was created out of a process not legitimated by technical blueprint models of instructional development--the process of collaborative conversation. This is the process that is described in this paper.

Seeking Interinstitutional Connections

By 1988 the Instructional Technology Centre (the Centre), in the Faculty of Education, University of Alberta, had provided the instructional design expertise for two classroom management simulations for a required course that prepares third year education students for a practicum experience. Although both simulations depended on the cooperation and input of teachers and students in public school classrooms, and featured almost exclusively location (classroom) shooting, neither were designed collaboratively

with practitioners. However, the second videodisc, "Classroom Management: a Case Study Approach", featured an assistant principal as a key content facilitator who was, in real life, a consultant in Edmonton Public School's Effective Teaching inservice program (for a more comprehensive description of the design, see Engel & Campbell-Bonar, 1989). At the time of completion of the second project, the Faculty of Education and Edmonton Public Schools (EPS) were beginning to seek links with each other, and the relationship created by the participation of the assistant principal led to an intentionally collaborative effort to design a third Level II interactive videodisc, "Do I Ask Effective Questions? or, I Can Hardly Wait to Hear What I'll Ask Next!" (see Campbell-Bonar & Grisdale, 1991). This project was realized with the interinstitutional sharing of time, technical, and professional resources among the Instructional Technology Centre, the Department of Secondary Education, and the Instructional Processes Group at EPS.

Essentially, a design team was identified to work together over one academic year to design and produce a two-sided videodisc for both preservice and inservice teacher education purposes. Although we were all, or had been, classroom teachers, the team was initially structured so that both institutional expertise and institutional interests were balanced. There was an instructional designer/project manager from the Centre, a subject matter expert from EPS (inservice), and from Secondary Education (preservice). The fourth team member was a drama/television arts teacher on leave from EPS to complete his thesis in the field of instructional design. In a sense, this last individual bridged both the expertise and fidelity requirements of the participating institutions.

Together Again

In March, 1993, the team members came together again in six conversations over four months, to talk about the collaborative process that resulted in this concrete, endlessly reproducible product for teacher education. The symbiosis of this process within a process did not escape us, because by sharing our memories in the public process of conversation, we created a new story of research and collaboration as we probed the remembered story of design and collaboration. Each story reinvented the remembered stories in ways in which we could examine and understand them anew. The process of conversation made us reconstruct the design events (what we did), and contest the myths of the collaborative process of conversation-based instructional planning (how we did it).

This process depended on and was embodied in the social milieu of shared, collaborative conversation, and the research process--the remembering and reinventing of

the design story--itself remembered and reinvented the story of the making of the QDisc. In this paper, I will tell this story within a story--how the research conversation is the story of the collaborative instructional design process; how the sharing of lives in constant collaborative conversation is the process of instructional design.

The Setting

We had a room to ourselves during the making of the QDisc. It was small, and windowless--a former graduate student office furnished with scrounged chairs, a filing cabinet, and a long table--but it had a door that locked, and we had the only keys. We lived in this room for a year, adding a coffeepot and mugs, and decorating the room with a changing content mindmap, an evolving flowchart on a rolling bulletin board, bon mots tacked-up, and growing stacks of articles, inservice manuals, and books. Others were invited into the room, because we controlled the access. Significantly, the room was located at some distance from main offices and the intrusiveness of telephones. We were not accessible to others during design days. Roy, a Drama teacher on sabbatical leave during this project, talks about the design space as the setting for a play:

> In this group you couldn't withdraw. It was a tiny little room .... The setting. It's like a play. The setting makes a difference in terms of the play .... It was almost like, "Okay, here's the challenge. First of all, survive in this goddam room." And we decorated the room with our humor, with our interchange, our stories; and we made it into a setting whereby it was warm and friendly ... and every time we came in .... The stories were not just to share, but they were also a way of making an environment for ourselves in which to interact ... (Roy, 1993, June 18).

To physically recreate this setting was not possible during our research conversations, but we did manage to reserve a conference room with a closed door in the Centre, retaining the security of private conversation. I furnished the room with a videodisc player and the QDisc, flowcharts and manuals, and fresh baking. I wanted to have available artifacts of the design process and its concrete products so that we could listen to and remember the story that we told about questioning, so that we could honor again the teachers chosen to tell the story of questioning, and so we could reconnect to the conversations now embodied in the instructional design of the videodisc. The fresh baking was also a way of reconnecting on an emotional level with each other--we had done much of the work of this collaborative process in social milieus, in restaurants and doughnut shops, and in each other's homes. The baking exemplified the caring regard engendered by trusting conversation which was the basis of the design process and, now, the research

process. Again, Roy describes how we came together in the Centre on design days:

> We'd come down here, and everyone would know where everything was .... We'd be getting our mugs and our coffee and then we'd be laughing, laughing and chatting and then the noise, all the way up the hallway, and in there, and then the door would close and .... I thought all that part and parcel of the ritual. It added to the nature of the whole thing, because it was always there (Roy, 1993, March 18).

This was how we came together again, after four years of living and working in different teaching contexts. Later, we came to think of this process in uniquely personal ways, because for each of us that year marked more than a successful, innovative project. Working with each other in different ways in the intervening years, we variously described the process as team-building, as culture-building, and as the sustaining of family. I think of this coming together as a ritual, because for me the word "ritual" invokes the intentional and meaningful actions of culture-building (Campbell-Bonar & Olson, 1993). This way of starting the process each time we met to design, and now each time we meet to retell the design story, points to the difference between ritual as authentic talk and ritual as care-less, throw-away talk in which personal disinterest is evident. Al uses the word "ritual" in the latter sense when, during the conversation, he contrasts our meaning-ful actions with the meaning-less actions of the University work groups of his experience:

> One of the things that I've always noticed about the talk in this group and that is, that very little of it is ritual talk. And when you talk, when you're with a lot of other people there will be a lot of what I call ritual talk ... any kind of throwaway lines .... And it's not just 'cause we know each other well. It's sort of the style. Maybe none of us are very tolerant of ritual talk .... Everything is, all of the talk is authentic. And you pointed out [Katy], even the humor is purposeful (Al, 1993, June 18).

In my view, Al highlights the contrast of the collaborative group, in which ritual talk has a caring purpose and is part of the real work of collaboration; with the traditional work group of the academic committee, in which ritual talk is seen as preliminary to real work, reminding members of hierarchies and serving to hide power agendas behind false conviviality. In describing the authentic ritual of coming together in our group, Al refers not only to the ritual actions of pouring coffee, meeting and greeting, and moving noisily down the hallway to the project room, but to the lexicon of the process--touching base with the shorthand talk of our lives, using language and talk to nest ourselves in the knowing-about the real work of the collaborative process. This authentic ritual, this sacred

story of coming together in a safe and private space, reveals a shared image of our collaborative work space as a home to return to, and a family that makes that home, the family of the Makers of the QDisc.

We remember some of that authentic talk, and in remembering we nest again into the meaning of a family group in which the power hierarchies do not need to be established with every meeting. Instead the real talk, the conversation, evened out whatever hierarchies might have existed. As women, Louise and I share our knowing about the use of unauthentic ritual talk to put you in your place, "... and doing all of that power stuff all of the time. Like, 'I'm the expert here .... Let me say something that will show you that I'm the expert here.' And, 'Whose idea is this?'" (Katy, 1993, March 18), suggesting instead that the authentic creation of collaborative language serves to connect us to each other and to the work:

> You know, it's interesting how we developed a language ... "technofear" was one, "get the gestalt" ... it was body language too. We'd all rise and sort of, go off to the washrooms together (laughter). "Weasel words" .... You know, we had a kind of language. It's like little kids and pig latin, right? It makes you close (Louise, 1993, March 18).

We intentionally used conversation, and the tools of language, like humor, to create a collaborative space to come home to. This was both the process of the design and of the remembering of the design of the QDisc, living the story and reliving the story in the retelling of it, and making instructional meaning from the telling of life stories which are enacted in the instructional plan of the videodisc. The telling again of these remembered stories models the collaborative design process, and belies any clear distinction between planning and life. The content of our conversations was initially the content of the instructional plan and the way that we captured that plan for replication, and later the content of our narrative conversations in which we remembered that process. I was struck with the reflexivity of this process, how the non-structure of conversation became the structure of our remembering, from our very first family reunion. Roy reveals the seamlessness of the living and reliving of the process in how he now tells the story:

> When we were talking, like when we were going into this thing on a daily basis, in terms of the format, the amount of work, the amount of stories, 'cause they were stories, they were shared. It was almost like that thing, where you want to do bonding, okay now, tell someone your deepest secret. And everyday we would start off with gossip, events that happened in your life, it was almost like a sharing

> process that reaffirmed where we left off the day before. And then move on again. And we had that structure on any given day. And it was funny, us coming in here, and immediately falling into the same structure (Roy, 1993, March 18).

The collaborative instructional design process is reflexive. In telling our stories of teaching in collaborative conversation we relived our teaching lives, and because the research conversation is reflective of that design process, the rest of this paper will tell a story within a story--a reflexive mirror of the conversation that becomes the design. In this story we meet Louise, now a principal in the school district, who was the designated inservice representative in our process, a teacher, a coach of teachers, an expert in questioning as content; Al, a Professor of Mathematics at the university, a teacher educator, a question-studier, a coordinator of the practicum experience for which this videodisc was designed; Roy, now a curriculum leader, but then a teacher of drama and television arts, a graduate student on leave from his school to study and document the process of instructional design; and me, Katy, once a teacher of French and developer of curriculum, then the instructional designer, the project leader, and now the archivist of the QDisc project and the narrator of the story of how this disc was made.

Prelude to the Conversation

The conversation I am to recount was the sixth and final narrative conversation of this research process. I wanted to share some of the narrative threads I'd found in the preceding five conversations and nest them into my own beginning-to-know-about the collaborative instructional design process. In particular, I wanted to try out an image that was emerging strongly for me, for this process, for my ongoing projects in the Faculty, and for my way of being with others in my life--the idea of the process as the sustaining of family. On this final day, I told a story of the process of design as collaborative conversation by using our previous collaborative conversations as exemplars. I am, in effect, saying, I am the archivist of this process, and this is how we designed.

As in all our conversations, we set immediately into the work of creating a home, a haven, by nestling into each other's current work/personal/political lives. We had cake to eat. We brought the QDisc into the conversation by loading it into the player and finding an appealing freeze frame of the host. The image remained on the monitor throughout the conversation. Our calls were held. In this way we joined ourselves in a circle in time to the making of the QDisc.

Louise had big news: a surprise reassignment from a school-based administrative position to a Central Services role as a Principal-at-Large (PAL). Of concern to Louise

were the assurances she had given her school staff that she would not be moved from her current school for 1993/94. Louise was worried that:

> .... the staff will think I lied to them. And I hadn't. I really hadn't. And I said to [the Associate Superintendent for her area] in January, that I was very happy to stay, I wasn't feeling antsy. We've had a good year, a really good year. (Louise, 1993, June 18).

For Louise, leaving her school and staff is bittersweet because collaborative planning was really beginning to come together for them, and key to that process was trust. At the same time, she is assured that the reassignment is a "vote of confidence" for her. The Associate tells her that "we want you to be seen by some of the trustees and senior administrators who haven't had a chance to work with you .... It's an opportunity ..." (Louise, 1993, June 18). These opportunities are, we think, created for Louise, who has been increasingly involved in high profile collaborative activities with her school board.

Sharing triumphs and disappointments is part of the work of renewing family ties, and so now Louise turns to Roy for news about his application for curriculum leadership in a high school. When Roy first told us about this proposed move, Louise listened carefully for a way in which she could help, with a reference, a phone call, or additional information. This work of sustaining the individuals in the teaching family has little of the barter about it--Louise does not expect to be paid back for this help. Appropriately, Roy might hear the final decision while we are meeting today. Roy and Louise share another culture, have membership in a group that Al and I are not part of--the culture of school leadership at EPS. This is a connection for Louise and Roy that is lived out, on the one hand, in Roy's teacher advocacy at the school level; and Louise's personal/professional commitment to the mission of EPS at the Central Services level, which is supported by her portfolio and modeled in her professional activities. Roy and Louise are able to surface and reconcile these views, both in design decisions (what the teacher in the classroom needs) and in worldview, exemplified later in their Conversation about the proposed Alternative Practicum[1]. Both agree that the insider culture at EPS (the administrative appointments made on the basis of curling friendships), is still operating, but both tend to underplay its effect on their own careers.

If Roy is not reappointed, he will stay as Curriculum Coordinator at his present

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1 The proposed Alternative Practicum pairs student teachers with classroom teachers for a two-year practicum, in which University course work is collaboratively planned and offered on-site (in the school setting), in combination with field experiences.

school. Louise worries about his personal happiness, "So, what if you are there? I mean, how will you feel? I know you'll be disappointed about not going, but will you be .... I mean, will your stomach turn over and will you throw up?" (Louise, 1993, June 18). Roy doesn't want her to worry. The action of applying for this new position exemplifies his personal/political stance, a stance of teacher advocacy, a view to curriculum leadership, a way of working collaboratively in a school with a new program; a plan of wanting to move on to new challenges:

> I want to get some curricular stuff happening .... And, if I was back at the school, that's fine .... That's just the way it is, and they're a wonderful staff to work with. People would cut off their arms to get the job I've got .... But I would like to get another level of expansion because this next year will be a repeat of the one I've had here .... So that's what I'm hoping, that I'll be able to get in and do that because I see what can be played with .... and what you can start doing, and being able to work with a team (Roy, 1993, June 18).

At this juncture, we all seem to be moving on to something different in our lives. This was also true of the time of the making of the QDisc. I wonder: Perhaps when people are moving on to new lives and new connections they need to reconnect to old ones, and remind each other that places will always be set at the table when they come home, home to the haven of the QDisc-makers. At this point, Roy asks me if I'm going to accept an offer as Director of Distance Education at a Maritime university, and I list aloud the reasons I'm hesitant:

> .... I had to think, what do I want to be when I grow up? And it's just becoming clearer and clearer to me that I need to be teaching. Teaching in the schools, teaching at university, doing something with teachers and children in schools, period. And this really derails it. It's a good job, an administrative, consultative job. It would be exciting and I'd like to do it. And I could do some good stuff. But, it just gets me farther away all the time from teaching (Katy, 1993, June 18).

These are reasons that come out of nesting again into my teaching family--recently having taught an undergraduate course on reflective teaching in the Department of Elementary Education, at the same time as we were again coming together as the family of the QDisc-makers. Just blissfully reconnected with teaching, both in practice and in memory, I cannot just yet (not ever?) turn my back. As we talk about what is next in our lives, we talk about what is already true for us in our lives, truth and knowing that is surfaced in the political and personal stances we had to take to plan, stances that were revealed in the

conversation.

Connections are made each time we talk. The talk binds us together, bonds us together, in the moment of the story. The moments of stories that are recalled and nested into bigger stories are the work of family members that, after separations, seek to bring each other back to shared memories. Louise and Roy and I have connected on the personal/professional level, revealing ourselves to be inside the family of teachers, school leaders, and instructional planners. Al now makes a seemingly random connection. But this connection, which is generational for us all, is personal for Roy and Louise, especially, and underlies the esteem with which the social milieu of the process can be viewed.[2] Al responds to Louise's query, "What's new?", with, "Boy, my ears are still recovering, for one thing, from the Tina Turner concert" (Al, 1993, June 18).

Louise and Roy, excitedly, say together: "You went? You did? You were there too? Did you see me? We were all there!!" After reliving the concert in glorious detail, Al does a typical thing--he talks deprecatingly about his high status as a Professor, a well-respected, tenured faculty member and University community leader, "Besides that, well, I'm sort of waiting for the end of the year, now. I need a break. I mean, I don't have a tough life, but I need a break" (Al, 1993, June 18). This personal tension is picked up quickly by Louise and smoothed by humor, ("Everybody else says that. Must be true for me.") and we all laugh.

Yet immediately, Al both makes a connection to the classroom of Louise and Roy, and reveals his knowing-about, by recommending a book he has just read. For Al, this is a very caring way to be in this family--like Louise, he listens carefully with his inner ear to our personal/professional needs and finds a way to make available what is needed. In the conversation, this might be the name of an important and useful resource on questioning, or here, books about schools:

> ... read a couple of really excellent books, this week. You were talking about curriculum issues [to Roy]. And a book by David Perkins, "Smart Schools", (1992) is just excellent. That's one of the best books I've ever read about what schools ought to be. And then the other book is by Michael Apple and it's called ... "Official Knowledge" (1993). It's about how the New Right has sort of redefined the whole setting for discussions about education. Discussions about society. And

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2 The importance to this process of the social context is discussed in the second paper, "The Collaborative Milieu of Instructional Design".

> how they've convinced everybody to adopt their point of view so that their arguments are essentially irrefutable .... So, for instance, the issue is that at one time we used to be concerned about person rights and now the discussion is about property rights. Nobody talks about person rights ... (Al, 1993, June 18).

Here, also, we see how Al's personal practical knowledge about schools and about teaching, made his through living through the Vietnam years as a young, liberal father, a graduate student at Wisconsin; a member of the American Civil Liberties Union (ACLU). Being an ever-optimistic liberal is part of his authenticity as representative of the rights of the student, a stance he takes now as University Discipline Officer and a stance he took earlier in planning critically challenging video sequences and guided practice exercises on the QDisc.

Louise connects with the Perkins book, by agreeing it is excellent, and then recounts the story of the "Bridges of Madison County" (1994). Later, we will see how this seemingly plan-less conversation is, in actuality, very intentional in its orchestration. In fact, the telling of stories during the conversation reminds me of constructing macrame owls--unconnected strands of rope knotted together, brought together from the top, then the sides, separated into two distinct owl shapes and bound together again in a pattern on a stick of wood for a branch. In the conversation the stories seem loose, unconnected, haphazard, but as the ropes run through the fingers of the creators (for they are were often constructed in a social milieu, two or more people working on one piece) they are tied together with other ropes, and left for awhile out of the pattern, then brought back in again to make the meaning. This is how stories of connection are told by families, each teller picks up a strand to weave into the narrative that becomes the official version.

Now, Roy extends a social invitation to celebrate the end of the school year, and I add an invitation later in the summer to bring the family together again in a social milieu. In the family, the conversation continues from one dinner time to the next; what is most important to the family is revealed in these intimate social times. Now, it is not until we are halfway through our scheduled meeting time, that we begin to do what many would consider the real work of research, marked by my question, "Does anybody want to say anything to me?" followed by the usual laughter: "You're a nice person, Katy.", and "Good hair day." (Roy & Louise, 1993, June 18).

And so it was with the conversation: A design meeting would be taken up by stories of teaching, stories of home life, sharing of aspirations, recommended books to read; dinner invitations--what I maintain to be the sustaining of the collaborative family, the

real work of the instructional design process resulting in the making of the QDisc.

Finally, finally, the Conversation continues to begin. Louise comments on one of the first drafts of "The Instructional Designer as Constructivist: An Anarchist's View" [3]:

> Your whole discussion about your personal practical knowledge as a designer, and always having to leave that at the gate ... and your questioning that that's inappropriate. I mean, you are a teacher. There are lots of things you know and can bring to the process ... and this one, this is what I talk about all the time to teachers [Resnick, 1976][4] ... and it just really reflects, I think, what we went through in terms of the design process and collaboration and thinking about it as a process as we worked through it and not just a product .... There's a poignancy in some of the narrative conversations that has been really interesting (Louise, 1993, June 18).

Engaging in, reading the transcripts of, and then exploring in further narrative conversations the ways we came to know each other, help us see reflexively how the language of the process exemplifies its caring purpose. Here, Roy shares his revelation, understood now by his reading of the narrative transcript of Conversation Five, how male language can be used as a weapon in rational instructional design models:

> In terms of the instructional design, is it that noticeable to you, whether you're working with men or women? So the design models that have been produced ... whether they are ... engineer-based, in terms of systems design, emerged out of a male system (Roy, 1993, June 18)?

Louise and I have nested into each other's knowing-about language in the conversation, in good part through sharing Deborah Tannen's (1990) "You Just Don't Understand: Men and Women in Conversation", and now I try to put into words how a conversation-based process reflects a more personally authentic gender style:

> It's just kind of emerging more and more clearly for me. And one of the reasons is, Louise loaned me her book on how men and women talk to each other .... Every page, I thought, "Yeah, yeah." In every relationship that I have, personal, professional ... that really honed my thinking about the way that we're really

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3 The first paper in this collection.

4 Resnick urges teachers (instructional planners) to place learners in a position to actively construct knowledge.

> listening, especially in this research process. We mentioned before, Louise and I do a lot of overtalking. Not overtalking so much, as overlapping, so we finish thoughts. Not because we're being rude and interrupting, which it might look like from the outside, but because we're empathetic. So, here is a very female style. Women tend to talk about talk, and use the talk as the content ... their lives are a sort of research .... Probably the reason I reject those [rational, technical] models is because they are very male. Someone holds the knowledge, someone is the expert, someone directs other people, you're only used at a certain point, then you're not needed anymore. The information is always filtered through one person and that person kind of sucks the information out like a vacuum and makes it fit ... there's no room for personal language, the language is very technical (Katy, 1993, June 18).

Telling the Story Through Reflexive Conversation

In the remainder of the conversation, which consumes only an hour out of the three spent in talk, I nest the story of the story of the story: My telling of the research story, which is the telling of the story of the making of the QDisc. This research conversation parallels the design conversation because it is conversation-as-analysis. The collaborative reconstructing of the collaborative process would not allow for detached and unconnected readings of and comments on parts of transcripts and sections of papers. The examination of the examination of the design conversation, that is, the research conversation, was socially connected and plurivocal. This telling is not mediated by me, alone. In the following excerpts I try to reconstruct this conversation in narrative form, in which I offered my understanding of the design process, paying attention to the nuances of the social milieu. I tell it now as I told it then, the telling attended to carefully and told back to me in the collaborative research conversation.

The Conversation

The social milieu, exemplified by the sharing of food, is part of making a family space in which to work. When I say, "I'm going to read you guys some stories, okay?", Roy shows that he is ready to settle into the Conversation by asking, "Cake, anyone?", cutting and passing the dessert I have brought for this occasion. Since, as usual, no one is as interested in examining the actual videodisc (we've only done this once, on May 10) as they are in eating and visiting, I remark on the sociability of each gathering. "One of the things that's coming out for me in the collaborative process, is, have you noticed that we're

not terribly interested in the design, itself? We're interested in the process. Some things about that process are really strong for me--this process as the maintenance of a family group.

"Roy, for instance, was at one point talking about not getting to do the guide writing. And Al didn't come to the classrooms, and I came back at that again, saying, 'Yes you did. I called you and asked you to come.' And I'm thinking to myself, 'but that's very matriarchal of me, isn't it?'" Although the group laughed, I still really worry about this. Part of my understanding of this process as one of establishing and sustaining a family involves the obligation to keep everyone there and connected at all times. I know Louise shares this meaning of collaboration, because we both denied that Roy had been left out of the guide writing and that Al had felt extraneous to the classroom videotaping. In this process, can there be inside times and outside times? And, is that okay?

"You know, it's like a mother saying, 'You have to come to your father's birthday party.' Roy said something that I hadn't even remembered until I read it, that we 'always set a place at the table'. I think that was really so important to say, that the collaborative process is a family kind of process. If one of your children is absent, you set the place and there they are. You 'talk' to them and they're there. Or if a child dies, or goes to war, they're still part of the family, their presence is always felt. And to me, that's just a really strong theme. All the things we've done, the way that we've looked out for each other's careers, for each other's feelings, and being so interested in what's happening in our lives ...." I pause, and make eye contact with each member of the group. I think I've struck a common chord, because they're all looking quite thoughtful.

"You know, for more than half the time that we talk to each other, that we might think is just the prelude to the actual work, <u>is</u> the actual work. It's the work of the family." I've thought about this project for a long time, wondering why it seems to mark a personal time and a professional time so profoundly. Only recently have I begun to think about the process in this way, as the sustaining of family. If this is an acceptable metaphor for me to use, then the prelude is a ritual activity of the family--the moral language of finding out about each other's lives, setting the stage for the content of the design conversation that takes its substance from those lives.

Louise and I have talked about our experiences in mostly male committees and working groups. In these groups, conversation is mere warm-up, usually cut short by the exhortation to 'get down to work now.' This sends a clear message to us, that our lives must be kept quite separate from the business of teaching. Louise has been nodding as I

speak, and chimes in, "But I think that it will be hard to write, because there will be people who say, 'That's a justification for not getting down to work, and being organized. That's the BS that happens, before you get to the agenda.'"

"Right!" I agree. "So, what we do immediately, is we move into a teaching story, and we always start with teaching stories or career stories. And, you're right, some people might say that we're just warming up, we're just making connections, and that wouldn't be an inconsequential thing to do, anyway. But what we do by telling these stories is really put out on the table our personal practical knowledge about teaching. Everything in the conversation hooks into who we are as designers of instructional plans.

"So, the next thing Louise does is tell a story, and I think this is a very female, or feminine strategy, to tell a story, a personal story, that has some important issues in it, but is a story that other people understand as being part of their own lives, as well. This is the story you tell." What I'm suggesting is that we use the content of our lives as the content of the research process, right now, and as the design process, when we were working together. Throughout the design process we shared stories of teaching, and that helped us anticipate the story we were trying to construct on the videodisc. The story Louise told, the story that I'm retelling here, begins, "That reminds me of my girlfriend who, the first year, she couldn't get a job with EPS when she graduated, so she went out somewhere, some rural place ....", and apparently the principal offers her the job, but asks her whether she wants to teach Taxidermy or Bovine Nutrition. Thinking fast, she chooses Taxidermy, because she can get guest speakers. What a beginning teaching story!

"And we all laughed, because that is a story that is very much part of our own teaching stories. The first year of teaching. You know, you want a job, you want to start teaching, and you get the worst job, but you make lemonade out of it."

Al put in, "My first year teaching the principal had me slotted in for two classes in the same period." As we all laughed he continued, "I thought this must be a mistake. So I went to the principal and he said, 'Yeah. Well, that one class is pretty easy to teach, so I put them right across the hall from each other.' So, I had two classes at the same time. I thought, 'Jesus.'"

"That's not so bad, at least they're across the hall," Louise pointed out.

"That's such a typical beginning teaching story, though, isn't it?" I said. "So, Louise tells this story, and we've all experienced this, and, in fact, we do the very same thing during the project. We get handed difficult situations, but we do something good with them .... We work with what we have, and make it somehow good. So, Roy, you

tell your story about Stettler, and you talk about the Charlois that was sold for $10, 000, and you're thinking, '$1.19 a pound, how much does that weigh?' I resonate with that story because what that's saying is that you end up in a rural environment that is not part of your culture, really. So what you're thinking here is 'processed meat', sort of trying to make that connection for yourself. But what it leads into, for me, is a statement of my own personal value system that is very important to the kinds of choices that I've made in my life. So, I go on to tell the story about Vimy and how I couldn't understand how they could raise these calves and give them a name, and then kill them. That's just a story, and we laugh at these stories, they're saying very important things about the way that we feel, about the choices that we've made. And it's not just feeling this way, but organizing our lives around these particular belief systems. Plus, what we've done there is we've told three sympathetic stories acknowledging dilemmas of teaching. So, one person tells a story, another person tells a sympathetic story, and we do that almost in an orchestrated kind of way. But what this does is sets the stage for the revealing talk that later comes in this conversation, because we come back to sharing what we know about the dilemmas of teaching. So this wasn't just warming up, but what it is, is really very intentional talking about the process of teaching." Having set up the idea of telling teaching stories as orchestrating the revelation of shared meaning, I feel emboldened to talk about our shared meaning system, humor.

"Okay, next, you asked me to tell you about my interview in North Carolina. So, I go on for quite a long time about the interview and I tell it in a funny way. So we laugh a lot about it. But what this is going to be is an apocryphal story in the process, and there would be things that I said in it that would now become phrases that we use like 'weasel words'. So what we're doing is developing a shorthand language, which has meaning for everybody, and we repeat them as we go through the conversation. One of them, for instance, is when (a member of the Search Committee in North Carolina) said, 'We could use a woman', we repeated that later and said, 'Oh, they just want ovaries.' So we used that again and again, and we know what it means."

Al said, "I was thinking. Of another book that I think would be of value here. It's a book by Daniel Dennett called "Consciousness Explained" (1991). And he talks at some length about emotive research that he calls 'first person plural'. And, he proposes a mode of research that he says is probably closer to writing a novel than to the writing of an objective account. And when you're talking about these things it seems to me that much of what we talk about here is first person plural. Because you say something and people

understand it as a common experience. If you write fiction you write reality, right? People write novels for the purpose of other people reading and resonating with what it means, or whatever. That there's a sharing of those themes."

Louise returned to a story that she told at the beginning of the afternoon. "I think that's why I brought up the book ["The Bridges of Madison County"], because it's a narrative. It's sold as fiction, but it's not."

"It's not," Al agreed.

"But, you know, the exchange that you two had is exactly what we're talking about right now. Louise told that story. At the time it might not have seemed related to something, but it's very intentional, because it's about narrative and about people's lives, which is what this is about."

"When you were talking about language and our shorthand, that's very interesting to me," Louise said. "When I think of children and little phrases that children develop and there's sort of a club, a mystique, from being together, and a shorthand way of being together that propels them into that moment that they last saw each other. Roy had talked about this before, that when we leave the room, it can be a long time before we come back to it, and as soon as we're back we're there again, like no time has passed. That shorthand does that for us. So I think the language is really important, and I keep coming back to the humor. I think our humor does that, too. It brings us back to the moment very, very quickly."

"And humor is a shorthand that we all understand, and it's not a simple tool. It has many levels, many facets to it. But it does that, it serves lots of other functions, too." So far, everyone seems to understand what I'm trying to say. "Again, I'm thinking of that in terms of the family. I think about it in terms of a Mom. I mean, I think about myself as a mother. What are some of the kinds of things that I do? Well, I mediate between Courtney (my 12-year old daughter) and other adults, for instance. Whoever they may be, [her father] or whoever. Trying to bring them into her world, trying to make it easier for her, trying to make a joke about it, so that she doesn't take it too seriously and it ruins her life. The kinds of things you do in a family to make sure that people continue to be okay in it.

"And Roy is now telling his story again about what he wants to do. And Louise, you talk a little bit about [a leadership experience at] Vanderbilt [University]. Everybody's revealing their value system ... not doing next year what you can do with your eyes closed this year, always taking that opportunity to do something different, learn something different. And I think that that's really a clear value system that we all have. And then, I

apologize for being so task-oriented, which I'm constantly doing." The accompanying laughter is a reminder of how often they teased me for being tense about how we appeared to others, laughing and chatting, seemingly completely off-task. Even though I believed in our socially interactive process, I was aware that it might be (and was) misconstrued by the institutional authorities.

Louise added, "And we all laugh."

"Well, this is sort of the relational obligation of collaboration. I think I keep doing what I call being task-oriented because I feel responsible to you, because you're coming and, in some cases, it's not easy for you to come. And coming is quite loyal. But, at the same time, I've got this meta-language going on in my head because I know that we've been doing work all the time. It's been work from the very first second. It's just that I think that I should have an agenda and ask these questions, but then I reject that, so there's this dilemma that I have." I've worried about making this time count for everyone, especially Roy, who was the least flexible, or had the least power, in determining how his time was spent.

"Louise then tells a story of the partnership project introduction [5], a very big key for you, I think, Louise, because you talk about your own value system, and again it's a funny story, about professional behavior, about change, about collaboration and what that means to you. About being open to new experiences. This story raises lots of things, not only from Louise's point of view, but the way we come into it. Roy here especially, because this was a conversation that was very much between you and Louise. You know, about projects that the University suggests to the schools and how your story is really the working conditions of teachers and no wonder they're hostile to that kind of stuff. Because they always mean more work and no help. That's the way that teachers experience it in the schools. And I went back and looked, and throughout our conversations your story is very much as a champion of teachers. And I suspect you are that way as a leader, and that's something that is important to you in leadership, you champion the teachers. You talk about that too, and what you'd do when you get to [the new high school]. The first thing you'd do is you'd look around and see what's being done right. Here, 'What are these people doing right? Because they're doing more right than they're doing wrong and I want to see it and tell them.' So, that really comes clearly

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5 An alternative practicum, a two-year model for on-site teacher education, collaboratively planned by Jean Clandinin and Julia Ellis of the Department of Elementary Education, and William Maynes of the Department of Educational Administration, and Edmonton Public Schools.

out in your story.

"There's more talking about schools. And then the talk turns a little bit towards power, and power in teaching. 'There are people that have trouble giving up their power to anyone, they see it as power.' That's Louise, and Roy comes back in talking about one thing a new principal could do, which is to leave the doors open. And how that would be a more open atmosphere in the school, but it doesn't mean that anything's going to change in the ways that people work together. But I go back to Louise and say, 'Just go back to that, the people at the meeting. Are you saying that those people couldn't be involved in collaborative planning? I mean, are there people that should never be involved in a collaborative process?' And you stopped there and said, 'Actually, I hadn't thought of that, but ...', and then you start to question that and then Roy comes in and questions that, too. Is collaboration actually a personal style? You know, something that only a few people can do, successfully, and that we should know which people those are, but not expect that everybody will plan collaboratively, and do it well, and do it at 6 o'clock at night? And, of course, we know that people are rebelling against that. So, maybe that's just not a style that everybody can do well. People agree that it's a creative style ...."

"Or is it something that certain people seek?" Louise asked thoughtfully, "because I don't know about you, but I find myself more and more and more, as I continue in my career, really thriving on collaboration. And so I will go a long way to seek it out. This year we've had more collaborative team planning in school than we've had ever before. And I do take credit for some of that. Obviously it's my staff doing it. But it's me constantly encouraging them, and talking about it. And I don't mandate it. I don't stand there with a stick and say, 'You will collaborate.'" As usual, Louise explicitly explored her personal practical knowledge in this reflexive context, trying on and adjusting her understanding about collaboration each time.

"But you make room for them to do it. Giving them time and space to do it."

"And support like supply teacher time, and you know, all that. And I coach, and they coach, and all that is happening," Louise agreed. "But, I don't know, I just wanted to throw that in. There's something there, I think, for me to think about, is, do certain kinds of people seek it out?"

"And you're asking it of yourself. So, if you're asking that consciously, you know what kinds of things you'll take on and be successful at in terms of being a Principal-at-Large, for instance. Louise, there are a couple of pages here where you're really strongly talking about collaboration and what it is. And you're saying this is what it is for me. And

creativity comes up very strongly for you. You come back to creativity several times. And you say creativity depends on learning readiness but opportunities as well. The opportunities have to be there. And you make that point ... and then we come back to a shared teaching story. So, to me, it's very clearly like a musical score. Shared teaching stories, then out, then shared teaching ..." As I said this, I used my hands like a conductor. "... and that's how we move on to the next thing that we're going to talk about. And so we really strongly share a value system about learning, all of us, which is, I think, one of the reasons that this is a successful experience for us. And I want to tie this into the idea, and Roy, you brought this up in the first conversation, the idea of a designer as a teacher of 'learnings' in the process. The process being teaching everybody or one person in the process. So, collaboration as learning, and we mention that really early on. What 'learnings' happened for everybody."

"One of the things that I have felt was important in this group, is that I think that all four of us are serious about teaching," Al remarked. "And yet, all four of us share a sense of life as being somehow a little absurd. And so there's that kind of playoff, because ... and you're right, there are a lot of people who don't have the sense .... I mean, life is serious, teaching is serious, and that's it. And I have difficulty with that, you know. And I sort of gravitate towards people who share a sense of life as being a little absurd. I think it's healthy, really. Because none of us take ourselves all that seriously, that's always been very important for me."

Picking up on that, because it plays into the use of humor as a design tool, and as a shared meaning system, I added, "Well, what comes up when you say that, for me, is playfulness. The playfulness comes up, and the humor comes up again and again, and the playfulness is evident in the kinds of things that we did in the total design."

"We sort of punctuate episodes with it, as well," Al agreed. Then Al returned to a comment that Roy had made earlier, about his [Al's] voice being mostly absent in the transcripts. "What provokes me to talk? Part of it, well, by nature I'm sort of a quiet person. So that's, I'll say that. I guess the other thing is that I, you know, when you two talk about schools I sort of back off."

It occurred to me that Al, like me, felt mostly <u>from</u> the school system, where Louise and Roy were really <u>of</u> it. I think that this was seen mostly in Al's and my trust in Louise and Roy to provide the most authentic examples for the content of the disc.

"Do you feel that we are, when we start talking about classrooms, schools, do you feel that you can't contribute?" Louise asked, and, to laughter, continued, "And/or, if I can

ask a serial question, do you feel that we're being pushy about schools and you can't get a word in edgewise, or do you feel I am?"

"No, no, and yes," Al answered as would a typical student faced with a serial question. "No, that isn't the case. I've always had difficulty commenting on another person's reality. And if you're a teacher and you talk about teaching I just find it very difficult to become engaged in conversation about that. And I'm not saying that's good, I'm just simply saying that I find that difficult. I mean, that's your reality and that's why ... It's sort of presumptuous for me to comment on."

"Is that why you gravitate towards collaborative projects with student teachers?" I asked him. "Where you don't have an evaluative role?"

"May well be. Yeah."

"Or you like to live vicariously," Louise suggested, again to our amusement.

"Yes, I love teaching when somebody else does it," agreed Al. "It's uncomfortable to push my view of reality onto someone else. That's just the way I react. I say that without value."

"Maybe a better question I could ask," Louise continued seriously, "or should have asked, is, are there times that you can remember clearly when you have wanted to say things but for some reason didn't, or would have been uncomfortable saying them? Did we cause that reaction for you? See, as I read these narrative notes, Roy was saying it's the three of us talking a lot and Al talking less. When I read these, it struck me in about the third narrative conversation that Al is a clarifier. He is wonderful at decoding and unscrambling my valley girl talk and just coming up with this beautiful two sentences that kind of clarifies it, and says it."

"I'm willing to guess," I said to Al, "that when you read these, you didn't think to yourself, 'my voice is mostly absent'.... because the process of reading this brings you back to the story itself. You mentioned earlier that it's neat to reconstruct the story by reading it again and again. But you put yourself into it when you do that. You know what it is that you were thinking when others were talking. Whether or not you said 'right', verbally. Whether you vocalized that."

"You have an amazing facility for repeating things you have read," Louise pointed out. "See, and Roy is totally different as a listener. You don't vocalize, at all," she continued, turning to Roy, who was nodding. "You're the quietest listener on the face of the earth. You don't interrupt. Even your body language. You're not a nodder."

"You don't want to interrupt the person," Roy said. "They're working on stuff.

So you let them go. All the time Al's been talking I've been purposely not looking at him ... and just let the person move and flow, 'cause right now, if after asking Al the question, if I turn my body towards him, that's just part and parcel of it. A drama style. It's a choice. And I've been reflecting on, just some of the things that I noticed in terms of the references in terms of a support person, that you are to Katy. And, as you're going through here how your interjections have mainly been based on, 'Gee, there's this book that you might want to read.', and it's been support, support, support, and the sharing, the generosity, that you're bringing forward, and that brings you out. Yet, there you are. You had a great story, it was a great story about the two classes, but you chose not to bring that out when we were bringing that out. And I think a lot of it might have to do, too, with the rapidity with which the three of us vocalize. Because we fire real quick, while you're very much more reflective and pausing, and forming, and that allows you to make those good statements."

We were momentarily stunned with our insight, so we helped ourselves to more cake while we digested the conversation so far.

"I think that is true," Al resumed. "It is a rhythm thing. And frequently, if I'm in a group where there's rapid interchange, I will withdraw. Or at least, I won't make a conscious decision to do that, I mean, I don't say,'Well, I'm going to withdraw now', but I find myself doing that. And there are differences in rhythms that are influential. Whew!"

"In this group, too, you couldn't withdraw," Roy reminded him. "It was a tiny little room. That room, had a big impact on not only the nature of the design ... can you imagine if we had had a spacious room? You know? And how that ... the setting. It's like a play. The setting makes a difference in terms of the play. But if that setting had been different from that room ... it was almost like, okay, here's the challenge. First of all, survive in this goddam room. And we decorated the room with our humor, with our interchange, our stories, and we made it into a setting whereby it was warm and friendly. And that room was decorated, and every time we came in ... the stories were not just to share, but they were also a way of making an environment for ourselves to interact."

Here, Roy identifies the importance of the scene of the conversation. The design conversation would have been very much different, so the design would have been very much different, if it had had to be accomplished by moving materials from one meeting space to the next, packing up ideas as well as paper; being careful in the conversation because it might be overhead. The home of the process encouraged the

'freewheeling-ness' noted by Al. Here, also, I think we see additional metaphors of personal practical knowledge revealed: Louise's metaphor of a secret club, Roy's metaphor of the play, Al's metaphor of playfulness, my metaphor of the family....

Still thinking about the rhythms of the conversation, Al said, "One of the things that I've always noticed about the talk in this group ... very little of it is ritual talk. And when you talk, and when you're with a lot of other people there will be a lot of what I call kind of ritual talk. And there's very little of that, here, any kind of throwaway lines."

"We get to the meat quickly," Louise agreed.

"And it's not just 'cause we know each other well. It's sort of the style. Maybe none of us are very tolerant of ritual talk. I don't know." Al added. "All of the talk is authentic. And you pointed out, even the humor is purposeful."

"But the humor too, it occurs to me, as you're talking about it, that someone could read the comments that I make as really very hurtful, and extremely insensitive," Louise said. "Correct me if I'm wrong, but I don't think I'm an insensitive person; it wasn't meant to be hurtful. When you talk about humor that will be a challenge. When is it appropriate, and when isn't it?"

"Which would be part of the systematic model which I would reject," I said. This is really the crux of the matter for me: How can I describe the conversation-as-design without then legitimizing the rationalization and technocratization of conversation as design method? "We started talking about humor because the first thing that we did was we looked at the disc for the first time, or Roy had never seen the disc before. He looked for the humor in it right away. First of all, he said, 'I have a question', and Louise said, 'Go quickly and wash your hands, Roy.'" Remembering, we all laughed again.

"God, we're good. I crack myself up. I can hardly wait to hear what I'll say next!" cracked Louise.

"Oh, at the end, you were looking for pictures at the end, and you thought at the end there might be ...." I looked for the place in the transcript where Roy was examining the disc for production quality. He'd said, 'I didn't know where the humor left off and I just wanted to see the disc.' "Humor is like the first thing that you're looking for because for us it defines a remembered process."

"And relationships," Louise agreed, "to remember the relationships in the room. It was a warm time."

"... you were doing that at the same time that you were looking at the teachers as the first thing that you chose from the menu. Honoring people that we cared for. Humor

is a part of honoring people that we care for, it's a good thing. It's a good thing, and people don't use it to hurt people, usually. It's funny, Louise, that you would say that about your own humor because last term, too, when I was teaching, my friend (and collaborative teaching partner) Laurie said to me once, in about November, 'You're really funny and they don't get it. They have no idea what you're talking about.' And so I wondered, what am I saying that ... I think I kind of toss off things, but I toss them off out of my own context, out of my own remembered experience, you know? And I think that that's part of the same thing that we're saying, that if I'm tossing off something about a teaching experience I had, they haven't had one yet. So, they don't get it."

Al shared a similar style. "And then I think, well, they'll probably remember me as this eccentric coot, you know, and they need somebody from the University that they can talk about--this eccentric coot used to entertain himself."

"Just a couple of more things." Here I go, being task-oriented, again. "One of the things that I wrote down on my outline is, Carolyn Heilbrun (1988), in "Writing a Woman's Life", talks about painful language, searching through the pain; stories that lie beyond the constraints of acceptable discussion. And, it seems to me that the [story of tensionality] emerges exactly like that, a little bit more each time. And, Louise, it's actually you. You're not afraid to do that, and I'm thinking about what you said about confrontation, and being conflict managers, and how it might be really awful but you just have to deal with that. You know, you can't let that stuff go on. You put it in the file because it's important to do that. So, that's one of the functions that you have in this conversation, is, you work through that painful story and you won't let it go .... And I'm thinking that that is very much part of a feminist, or a feminine style, you know. Generally, in reading "Women's Words" (1991), which is about feminist oral history, women very often are careful about the things that lie beyond the constraints of acceptable discussion. I mean, they just don't bring stuff up that they know will be hurtful to other people in the conversation. And, although [this story] has come up in every conversation, it wasn't until the fifth that, it was a month, before we actually talked, about all of the implications, you know, of that whole experience. You said you sort of learned that as an administrator, but I'd be willing to bet that that's you."

"Personally, you know, I sense that something isn't right and then my reaction to it is, that's sort of my cross to bear, or something," Al interjected. "I'm not very good at reacting to bad situations. I don't know if that's a personal style, or a male orientation. I suspect some of it is a male orientation. I don't know if that's what society induces in

males. My wife senses an injustice, or something, and she reacts immediately. And I see an injustice, and I think, 'Oh, that's the way the world is'. It's interesting that each of us has tried on a different story of denial about the situation under discussion. Here, Al talked about a gender style; Louise didn't have enough experience dealing with conflict; Roy was worried about inappropriate power and was concerned that we maintain Team; and I think I felt torn between my institutional accountability and my allegiance to the others.

For a little while, we talk about this time of disruption in the process, then finally Al does what we admired earlier--he clarifies the question and links it to his changing understanding of collaboration. "This whole area of collaboration, when it, it sort of assumed a sort of faddish status at one point, where it was a big thing, and still is, in our Faculty--I pull back. But, over time, I sort of changed my view of collaboration, and have gotten all of the talk about it, and so on, to the authentic parts of collaboration." Turning to Louise, he continued, "I was interested in your talking about your increasing use of collaboration and why that is. And then, that gets back to [the story of tensionality, discussed in the fifth paper] because you were asking this big question, like, 'In a collaborative project like this, is it necessary to have [everybody] on the same page as we are?' And, it was interesting to read through that conversation that we had, and we got a lot into the importance of directors, camera people. I don't know if we've resolved anything there, but it did more sharply define the issues of collaboration. And I suspect now that in educational uses of technology, that collaboration is essential. I'm just writing this thing about the use of VISIT, [6] and the possibility of tying schools into the library, but I was thinking how could you do that unless the people in the library and the people in the schools shared the same vision, and shared the same agenda? And that has to be the nature of collaboration, otherwise you're just going to miss it."

Conversation as Design

In conversation we make meaning out of stories, meaning that is enacted in a plan. This is the Conversation as Instructional Design. In this conversation, every story we tell is intentional: We share our images of teaching, and these images are given life by the teachers who ask questions. We share our teaching stories, and these stories become the content of the questions the teachers ask. We share our lives as parents, and our family lives are connected to our images of teaching. The instructional design evolves from

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6 see Campbell-Bonar, Jamieson, & Olson (1994).

talking about our shared classroom experiences, told as we engage in editing conversations with our teachers asking questions in their classrooms. The rhythm of the conversation is the rhythm of teaching is the rhythm of the design. There is no clear distinction between the design activity and our lives.

In this excerpt, we talk about how the design conversation modeled the actual technology that would represent it: it was intuitive, dynamic, spontaneous, chaotic, and interactive, and it was very personal. Roy expresses the transformative nature of conversation:

> But there was also, each and every person, getting an education, as well as that closeness that was or had to be arrived at, or that maybe added to the commitment and the ability for the design to continue. If, at one point, had this not happened, would the design have stopped? ... There may be certain points in the design model, that are just like an interactive videodisc. I wonder if we weren't an interactive videodisc ... if we didn't go to here then we were rerouted to here, there was a decision-point ... (Roy, 1993, March 18).

At first, the conversation does not seem to fit into the rhythms of school and academic life. Institutional accountability makes clear the expectation that a well-defined job is to be done in a plan-ful way that does not accommodate the personal rhythms and learnings (the coming-to-know-about) of collaboration. Of the four of us, Al and I felt most accountable to this view, and consequently most guilty about its defiance. I remember my vow to stick to the agenda (whatever that was) when I heard Al talk about his uneasiness, although for Louise and Roy the conversation was a revered essential in their coaching and drama and teaching families.

The conversation, which was based on the shared language of teaching, emerged from our talk and from the talk contained on the videotaped classroom stories that unfolded as we watched. The stories in the QDisc were told in the classrooms as we watched, and we reconstructed those stories later, in the editing suite, into the instructional story of questioning. The stories of Question Framing, and Wait Time, and Taxonomies, and Questioning Disabilities--all were assembled from the Conversation about the teaching we saw unfold in front of us, frame by frame, from the day's master tapes, and the next day's videotaping was informed by the meaning shared, conversationally, in what we had seen. Thus, the teaching itself became the content of the conversation, which became the instructional plan called "Do I Ask Effective Questions?"

This seems to be an honest way to tell stories of teaching for others who will come

to know-about questioning. Conversation authorizes the decision to actively value the stories told in the asking of questions in the classroom by legitimating them as design process. In this process we trust the teachers we are honoring at the same time as we honor each other's knowing-about teaching. Al describes the editing conversation as design process:

> I was just thinking that part of the consensus-making, part of the decision-making took place when we were up in that little place (the editing suite) and Roy was spinning the dials on the machine and picking out sequences. I mean, there was a sense that this is what we have, so whatever we make it's going to be made out of this. And so, that became an important part of the decision-making (Al, 1993, May 20).

This active process rejects a retreat into the artificiality of scripting:

> ... you armchair this stuff and you write out questions and classrooms are well-behaved and everything is just perfect .... And you start getting into real classrooms and that's not the way they are, and so that's another source of concern, that we wouldn't get what we wanted (Al, 1993, May 20).

Instead, it empowers conversation as a way of teaching that comes from the personal practical knowledge of the designers:

> But, at some level, that's part of being teachers again. And I think, to go back to consensus, that that's what we do every minute of our lives, in classrooms, and as coworkers .... We didn't even have to say to each other, "We know that, that kids are going to answer that you didn't expect to have answer, or a teachable moment's going to come up and that'll take 11 minutes", you know, we knew those things and didn't have to talk about them [in a script] (Al, 1993, May 20).

The conversation requires that we share images of teaching by telling stories of teaching. Here, one shared image is a common one of 'just getting one more little thing in' to the teaching conversation:

> One thing I really like pedagogically about Level II videodiscs, is with the teaching sequences, you return to it again and again and again. That really ... gives the right impression about teaching ... that there are a lot of things going on here (Katy, 1993, May 10).

Louise agrees, "Yeah, that it's complicated .... That it's not sequential, and when you learn this, then it's learned? And you go on to the next thing? I really like that, that it's complex. Sophisticated ..." (Louise, 1993, May 10).

And, finally, the conversation helps us to connect our lives to our images of Good Teaching, which are embodied on the videodisc as the content and the design.

Why Conversation?

Design partners in a collaborative process need to be aware that each is the sum of all past experiences, and that their embodied knowledge--about teaching, about relationships, about life--will cause them to interpret the design task and experience through personally and socially constructed symbols. Conversation is the public symbol system that allows this embodied knowledge to be surfaced and made available to the group, so that meaning may be negotiated and then captured in an instructional plan. As a symbol system, conversation corresponds to shared knowledge and provides the means with which we can connect on a deep level to each other's life experiences--our values, imaginations, and "ideological and axiological frameworks" (Chanfrault-Duchet, 1991, p. 81). The telling of stories, the oral narratives which provided the content and drove the process of the collaborative instructional design, were the meaning systems represented in the constant conversations in which we engaged in workrooms, in restaurants, in classrooms, at lake cabins, on the telephone, while watching daily rushes in the television studio--over time and space and separation and nested lives. And as nesters in each other's lives we became primary collaborators in each other's stories (Campbell, 1993).

Collaborative conversation as an instructional design method has been problematic for the theorists of the rational paradigms, unless they are able somehow to systematize the process or reduce it to the work of team-building that happens before the real work of design can begin (see, for example, Scheel & Branch, 1993). This is a view embraced in the androcentric worlds of industry and academia, although I suspect that there are more design anarchists like me than would be admitted at annual professional meetings. In fact, reviewers of my work have consistently confided their intuitive models while refusing to delineate a socially constructed process, except retrospectively[7]. I submit that any instructional design process involving two or more team members will unfold in a conversational milieu,admitted to publicly by its participants or not; and that the making of curriculum will always require a constant internalized conversation with oneself, as well.

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7 For example, one reviewer for "The Instructional Designer as Constructivist: An Anarchist's View" commented, "As I began to read the article, I immediately thought of my experience as a designer and the times I was asked, 'What model do you use?' My very flip response was 'the intuitive model' and then quickly went on to describe how we use parts of various models in the order which fits the project, the faculty, the situation. So I can identify very closely with the writer of the article."

So, what does the collaborative conversation look like, and how are its elements embodied in the curriculum/the design? For this I turned to the insights of feminist oral historians who, in their work with women with whom their lives became entwined, understand the process of telling lives as one of seeking deep moral connections with others.

The Purposes of Conversation

Conversation is collaborative, participatory, and inclusive; that is, the purpose of conversation is to establish a community because community is the source of power and meaning (Tannen, 1990; Minster, 1991). We recognized the power of the community of the teaching family in providing us with collective memories and as a social structure that let us do the work of design. "Roy said something very interesting in one of these conversations ... that we always set a place at the table" (Katy, 1993, May 10), and this setting of a place, this establishing of community through conversation was accomplished through the telling of a teaching story, putting out on the table our personal practical knowledge about teaching. The stories always contained collective memories, for example as in the beginning-teaching stories, that set the stage for the sympathetic, intentional talk about the process of teaching that, in retrospect, contain the meaning of the design. These stories are sympathetic and intentional just because they are told to cement relationships in the group--stories that are revealed as collective memories in the sharing.

The Forms of Conversation

If we accept that conversations are negotiations for closeness in the community (Tannen, 1990) then the forms that the conversations take must be purposeful and personal. This is not a contradiction. While the androcentric purposes of conversation may relate to power hierarchies (whose account counts most?), the conversation as negotiation has as its purpose the making of communal memories. Out of these memories come kernels of meaning that are collectively owned (Minister, 1991) and that lead efficiently to new stories of meaning in the community. Verbal markers, key phrases, questions, jokes, gestures, particular connotations such as "weasel words" and "technofear"--tools of the conversation--all are refrains that are regularized and are functional (Chanfrault-Duchet, 1991; Etter-Lewis, 1991). Thus, the telling of stories in the social milieu of conversation can still be authorized by guardians of institutional accountability. Both the forms and purpose of this conversation do differ substantially from the ritual talk of academic committees to which Al refers, however, because it is meant to be non-competitive rapport-talk (Tannen, 1990). Typical of this conversation: Cooperative overlapping in which thoughts are linked with shared life experiences. Louise and I

typically do this by simultaneous speech, by finishing a story started by another. We all do this by joining in to the self-deprecating joking about our shared personal and teaching dilemmas (Minister, 1991). Meaning is negotiated, communal memories are created by the sharing of humorous anecdotes and personal narratives commonplace matters and mundane experiences (Minister, 1991).

Why conversation? Because then stories can be told, and in the telling the curriculum is made.

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PAPER FIVE

TENSIONALITIES IN THE COLLABORATIVE PROCESS: RESTORYING THE MAKING OF THE QDISC

> In "real talk", domination is absent, reciprocity and cooperation are prominent .... At times, particularly in certain academic and work situations in which adversarial interactions are common, constructivist women may feel compelled to demonstrate that they can hold their own in a battle of ideas to prove to others that they, too, have the analytical powers and hard data to justify their claims. However, they usually resent the implicit pressure in male-dominated circles to toughen up and fight to get their ideas across.
>
> From "Women's Ways of Knowing", 1986, p. 146.

Four individuals were caused, by their institutions, to come together to design an interactive videodisc on questioning strategies for preservice and inservice teacher education. At the level of institutional accountability, the outcome was already formed--release time was bestowed, a project room was identified, the resources of the institutions were placed at our disposal--and at the end of one academic year we would emerge from our lab, videodisc in hand. The authorities also hoped that by aligning the resources and structures of their institutions in this way a new and better working relationship would emerge between the teacher educators of the Faculty of Education and the professional development staff of Edmonton Public Schools (EPS).

I came to think of this process as the sustaining of family, of which I was the Mother. I was responsible for the happiness of my family. I protected them from the attacks of the institutional authorities. I absorbed the demands of institutional accountability. I thought that the attacks I turned aside were never felt and that my family never knew about acts of destruction and disharmony. I thought we were all insiders and never made each other outsiders, and, most of all, I never considered that I was not solely responsible for the functioning of my family in the larger social contexts in which we lived.

But, in retelling our story in retrospective, reflective conversations some years

later[1], we heard of the tensionalities that were always part of the life of this family. The process of re-constructing our project biography was cathartic in the way that family reunions often are occasions in which memories are contested (Campbell, 1993) and myths reconstructed in more inclusive stories--stories that then become the sacred stories of the family.

Questions of Personal Authority

The interinstitutional collaborative project that resulted in the design and production of a Level II interactive videodisc for use in preservice and inservice teacher education, "Do I Ask Effective Questions, or, I Can Hardly Wait to Hear What I'll Ask Next!" (QDisc) was the third videodisc design project in which I was involved. The first, which produced "Classroom Discipline: A Simulation Approach", involved me as a graduate student on leave from a public school teaching position. The design, or instructional plan, of the videodisc was based on the initial SIMCLASS concept (Mappin & Parker, 1985) developed by Dr. Douglas Parker, my advisor, and David Mappin, Director of the Instructional Technology Centre (the Centre). As the very junior member of the team of three, I worked with a fluctuating group of tenured and sessional faculty in the Department of Secondary Education to extend four problem scenarios into stories with, in some cases, over 40 different combinations of plot lines. My experience as a classroom teacher, a good classroom manager, a student of courses in educational media and technology, and a collaborative curriculum developer seemed to provide me with all the authority I needed to work with teacher educators, teachers and students whose classroom interactions told the stories on the disc, and the production staff who captured those stories on videotape. By the end of that year of full-time graduate work, I had resigned from EPS and accepted a short-term position with the Centre to shepherd the project through production, videodisc mastering, and implementation.

Undertaking the second videodisc design project, "Classroom Management: a Case Study Approach", required a personal and professional reorientation for me, and a concomitant reorientation of the Faculty towards me. With "Classroom Discipline", I had been most legitimately a teacher, authorized to work with that knowing-about as a graduate student assistant of a tenured faculty member. Implicit in this authority was an alignment of expertise with the real knowers-about, Doug Parker and his colleagues in the Faculty,

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1 The research methodology, conversations which paralleled the design process, is explained in the Introduction.

and my teaching colleagues in the school system. It was like basking in the reflected glory of the knowing of others. With the second project, however, I had stepped out of the shadow of the authorized knowers-about and was required to author my own "calling card of expertise" (Haughey, 1993) which could be neither exclusively teacher knowing nor designer knowing. It was certainly not knowing-about teacher education. In this project I was to legitimize my knowing-about the instructional design of interactive videodisc, which was clearly unique to the Faculty, by leading the design team, but the implicit expectation was that my knowing-about was to be passed along to the faculty member who was my design partner. That is, the calling card of expertise called "Videodisc Designer for Teacher Education Materials" was to be owned, in the end, by him. As well, the "Classroom Management" story was to have the additional authority of named models of classroom management while "Classroom Discipline" came from the intuitive stories of knowing-about told to me by my teaching colleagues and retold by me as a problem scenario which could unfold over and over again in a multitude of combinations. As a consequence, my knowing-about classroom management needed additional authority, at the same time as the Faculty began to deny my authority as videodisc designer[2]. In addition, the uncertain long-term status of my temporary contract with the Centre demanded a decision about returning to the classroom as a teacher versus accepting instructional design project work for the foreseeable future. This was a period of redefining my personal and professional identity.

For the third videodisc project, the collaborative process described in this paper and others (see, for example, Campbell-Bonar & Grisdale, 1990; Campbell-Bonar & Olson, 1993) I was again to provide the instructional design expertise. On the first two projects, I had not been long out of the classroom, and felt especially comfortable in the content area. However, for "Do I Ask Effective Questions?" my knowing-about was at stake in many different realms: my knowing-about questions in the classroom, my knowing-about inservice teacher education, my knowing-about instructional planning for teacher education, and especially my <u>not</u>-knowing-about the interinstitutional collaborative development process in which I would now be engaged.

At a time, then, when I thought I needed to model knowing-about I found myself

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2 More specifically, the Faculty denied instructional authority to any member of the Instructional Technology Center. At various times, faculty members have demanded an explanation of instructional design activity which, apparently, should be the sole preserve of academic staff. On one occasion, a Department Chair denied my intellectual authority to guide an independent study of the design process of interactive videodisc by characterizing me as "just a technician".

in the middle of both a silent and a public dilemma. Publicly, by virtue of being on the professional staff of the Centre, I felt that I was expected to have and model instructional planning expertise by its supporters but was denied that expertise by its detractors. My silent dilemma, the familiar guilt of being an "impostor" , related to low practical esteem: out of the classroom for six years, I was uneasy about my practical content knowledge about questioning. In addition, I wondered how my own content expertise of French as a Second Language would translate into working practice in this case. I still felt that EPS was really my professional home, so I was anxious to make a good showing, but I felt more constrained by my instructional designer role and, as a consequence, more accountable to a circumscribed (rational, technical, and systematic) model of instructional design practice. This rational model was, I thought, to be my calling card of expertise, my authority in the process.

In the technical instructional design model I thought I was expected to have at this point, the content experts would tell me about teachers' questions and I would fill in the empty boxes of some predetermined design flowchart. In this model, certain concepts and activities would lead automatically, unquestionably, to other sub-concepts and activities. These activities would be enacted not only in the actual design process (how to design), but in the emerging design itself (how to find out about asking questions in the classroom). And, this collaboratively constructed plan would be communicated in ways understood and acted-on by people from two totally unique cultures, that is, the classroom teachers and the videodisc production crew.

All of us involved in this project were from cultures that, in some cases, seemingly required conflicting allegiances. There was me, Katy--immersed through my life in the culture of teaching for Edmonton Public Schools, a teacher of French, and now, serendipitously, an instructional designer in the Faculty of Education at the University of Alberta. There was Roy--a Drama teacher for Edmonton Public, a proponent of team building, a teacher of Television Arts, and now, a graduate student in the Faculty, in instructional media. There was Al--a Professor of Mathematics in the Department of Secondary Education and the coordinator of practicum experiences for which this videodisc was intended. And there was Louise--a teacher, a coach of teachers, an expert in cooperative learning on the Instructional Processes team at Edmonton Public Schools. And there were others who formed the television production crew, a director/producer, a graphic artist, a computer analyst, and a project supervisor who was himself once a television producer. The perceived exclusivity of these cultures were the source of the

tensionalities of false allegiances and of counterfeit acts, because the QDisc-makers came to see that their personal allegiance was to the process and to each other.

My own story of teaching confronts my fear of being caught at counterfeit acts: counterfeiting the act of teaching, of speaking French well enough to teach it, of knowing-about teaching well enough to develop curriculum for other teachers of French, of understanding phenomenology well enough to survive my Master's coursework, of knowing-about instructional design well enough to guide a collaborative process. Having too much fun, not doing the real work, not getting down to it--these are all my stories of tensionality in teaching, that were echoed in the story of the collaborative instructional design process of making the QDisc. Trying to work with those from other cultures, especially the television production culture to whom was entrusted the actual translation of our meaning into videodisc form, forced us to uneasy accommodations of the explicit expectations of institutional accountability and authority.

The videodisc records the instructional design process in a way that the teaching act itself cannot be made permanent. Teaching acts were imagined, suggested, then captured on videotape as they happened to eventually be matched with instructional and explanatory text and narrative. The way that we constructed that narrative, depending on each day's classroom footage to show us how questioning happened, was the process of instructional planning. Coming together again in reflexive conversation required a talking-back (Schon, 1983) to the artifact of the culture that created it, surfacing the counterfeit acts in which we were entangled, in our relational obligations to each other as a caring family, and in our relational and institutional obligations to those in other families. Telling this story is an attempt to untangle some of those obligations and to explore their effects on the making of the QDisc. In restorying the conversation-based process of collaborative instructional design, by using conversation as a reflexive medium, we gave voice to the shared dilemmas of collaborative process and instructional design that enclosed the making of the QDisc in the contexts known intuitively to us as teachers: a social context of conversation. These dilemmas, or shared crises of planning praxis, we called tensionalities of the collaborative instructional design process. They come from the blending and nesting of the lives of the designers, with the lives of the teachers, the question-askers, with the lives of those we charged with capturing the stories on videotape, the production crew, and finally the nesting of the process of the making of the QDisc with the requirements of institutional authority and accountability. In this paper, I am charged with telling these nested stories of tensionalities, knowing that my telling is the telling that will endure forever after. How I

choose to tell these stories is reflective now of who I understand myself to be as a collaborative instructional designer, and will also reflect the transformed understanding of us all into our knowing-about, our praxis as instructional leaders, curriculum developers, teacher educators. In the telling, I try to unweave what cannot truly be separated, un-nest what cannot now be unpacked. In this process is an acknowledged accountability--to pull apart these strands and weave them back together is to tell a new story, a version unauthorized by any but the makers of the QDisc. But I am the archivist of this process, and of the coming-to-know-about this process, and this is how I choose to tell it.

The Tensionalities of False Allegiances, Cultural Others, and Relational Obligations

The design and production of the QDisc was authorized by two institutions anxious, at higher levels, to build teaching relationships that were to be defined by each collaborative project undertaken from 1987.[3] At the most impersonal level, the institutions sought the acculturation of one to the other--each would understand the aims, missions, and actions of the other more completely. One instrumental intention of this project, certainly, was to enable faculty from the Department of Secondary Education to become more familiar with the inservice education models into which their future graduates would be inducted, as well as to become familiar with the teaching strategies encouraged by cooperating teachers with whom their current students would soon be placed. Also, the Department of Field Experiences at the University of Alberta was seeking new ways to construct the practicum that might include on-site teacher education and cooperatively designed student teaching programs that would serve as credited professional development experiences for participating teachers. Institutional agendas which sought the enculturation of the other included modeling the use of alternative technologies for teaching, and gaining the conceptual ears of the inservice teacher educators of the Instructional Processes group. EPS, on the other hand, welcomed the opportunity to contribute their voice to the content of preservice teacher education, the products of which were their annual new employees and immediate participants in inservice programs and workshops (where they learned the real stuff of teaching). Unintended by either institution was the culture-building that would contextualize and drive the process; which would ultimately lift it out of the reach of the

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3 At this time, the Faculty of Education and Edmonton Public Schools were actively seeking and supporting interinstitutional collaborative projects. In each of two years, the two institutions took turns hosting a one-day conference that, through a series of concurrent sessions sharing ongoing projects, celebrated collaboration.

authority and accountability of the institutions, alienating the new culture from its parents and setting up cultural dissonances with overlapping cultures--in particular, the cultures of technical rationality (Schon, 1983) represented by the systematic model of instructional design and videodisc production. The emerging culture (Campbell-Bonar & Olson, 1992) came more fundamentally from the culture of teaching, and owed its allegiance to the classroom and those in it. The design process and content evolved, were understood by us, the designers, essentially from the nesting of our cultural knowings-about teaching. And, since these cultural knowings-about could not be understood fundamentally by cultural outsiders, nor were they communicated in forms that were culturally convertible as scripts would be to a television director, the design-into-production phase of the project was bounded by the tensions of familial relational obligations and false allegiances acted-out. These tensionalities--between institutions, among cultures, and between insiders and outsiders within cultures--were nested one within the other, containing, like Chinese Puzzle Boxes, layers of meaning and memory. The restorying of the collaborative process attempts to reveal these nests within nests, peeling back layers of meaning within memories: institutional authority and accountability within false allegiances; inside times and outside times within relational obligations; and counterfeit acts within cultural others.

<u>False Allegiances</u>

In our first research conversation we remembered how allegiance to the collaborative process was accepted implicitly by us all. We initially described design team roles and responsibilities, as is good systematic process: "if there were designers, it was you and Roy. If there were content experts, it was Al and me." (Louise, 1993, March 18). Roy spoke for us all when he declared:

> It was a situation where we recognized that there was something unique in the room and that we were willing to clarify everything and get it all on the table, and then get rolling. My allegiance was not to Edmonton Public School Board, but to you [Katy], because I was working on this with you. (Roy, 1993, March 18).

In essence, the cultural understandings and knowing-about, the nesting of the personal practical knowledge of the designers about asking questions in the classroom and teaching others how to ask questions were communicated both implicitly and explicitly in conversation. That is, the model of design and collaborative process was, in itself, a culturally-based communicative model that was based on the cultural meaning we shared about teaching, and as such was not tacitly understood by the cultural others on whom we depended to translate implicit meaning into the explicit meaning of the public videodisc.

Attempts made by the others (among them, the television production crew) to clarify our design intentions, by transforming them into artifacts used by their cultures, appeared to us to be hostile actions deliberately mounted by interlopers: "... suddenly you're handing over your vision, for what this is going to look like, to technical experts" (Louise, 1993, April 15).

Louise tells of a critical time, a period of initial culture-building in the first active design meeting, when we chose to brainstorm the topic of questioning. The brainstorming strategy itself reflected the personal practical knowledge of us all as teachers of concepts, and validated both the expertise of Louise as a teaching coach, and the use of non-valuative, collaborative conversation as design tool. She remembers a time near the beginning as a pivotal point when she was brought into the process, when I asked her to take over the mindmapping:

> ... I had confidence that I could do it. I've done it in other situations, but can I do it for this purpose? And then we did it. And it was working. And I remember (an other) coming in, part way through that process, saying, "When are you going to start? That's enough of that. Now let's start the real design." And I can remember, from my point of view, feeling kind of like, I'd like to slam the door in his face. It was that outside enemy thing, right? Because we were humming along, and we were doing really important work. And I was very confident at that point, that we would be great. So I lost the fear pretty early ... not the technofear ... but the fear that I couldn't be productive. (Louise,1993, March 18).

Cultural Others

This cultural other, representing University institutional accountability and authority, wanted forms of work, of design, knowable (and valuable!) to him and his culture. At this point we were able to resist a false allegiance to a model foreign to our new culture of collaborative, conversation-based instructional design process, but it was not always so. While our outright rejection of a design process of technical rationality was legitimate, because we enacted a process that was transformed into real work, the tensionality that later nearly broke us apart came from a false allegiance in action to a culture on which we depended to literally make our meaning public- the culture of video production. In this culture forms of real work, like scripts for classroom videotaping, were meaningless as action plans to both the design process and the teachers and children who would enact them. And so the process was betrayed. From providing a safe haven for each other we inserted ourselves between our teachers and a cultural other, the production

crew. At first, we tried to make our design process fit videotape production practice in false and unproductive ways, ways which betrayed our knowing-about the life of the classroom and the creative way questioning happens in that context. From our knowing-about the centrality of questioning-asking in the classroom, and because we were in tune with the way that questioning actually happens in the classroom, we recognized not only the falsity but the danger of scripted and charted sequences. However, our knowing-about classroom life doomed us to a conceptual struggle with one who knew-about different, and to us false, things. We shared the sense of "dread that he was going to divert our agenda sufficiently so that it would undermine what we had been creating" (Al, 1993, April 15), a dread that started almost at the beginning of the production phase of the project:

> It started right at the beginning. That very first time, because [he] was really put out that we didn't know exactly which child, prior to getting there, should say what when and have them seated in a certain way. And he was very crabby .... He just didn't understand that what we were doing was going into the culture of the classroom. He wanted scripts. We weren't going to operate that way (Louise, 1993, April 15).

Part of the reason that this clash was so disturbing, becoming a tensionality for us, was that our tacit valuing of the unexpected process of teaching was so little valued by a culture dependent on the planned and the expected for its outcome. A mistake that we made was not acknowledging the authenticity of the known culture on which we were depending for our content, and in not sharing that tensionality with each other for a long time. Al speaks for us all when he reveals his self-doubts, his questioning whether he belonged in the classrooms, "I know I felt sufficiently inept so that when he reacted that way it was bothersome to me" (Al, 1993, April 15). And Louise verifies the group's silently shared, but not-yet-voiced, "discomfort", because,

> ... [since] it was the first time I'd ever done this, my concern was ... who's in charge of this? Do we have the creative right, and I'll phrase it that way, to say, "This is how we want it done," or is this a well respected producer, and is he the one who says, "No, too bad. This is how this is done, baby, and you don't know anything about this."? And, because of not having that expertise, I felt that I wasn't really in a position to say to him, "Hold on here" (Louise, 1993, April 15).

Collaborative processes, in their intensity, are a commitment on such a personal level, that it does not seem possible to walk away from tensionality, to leave it at work. In this case, we each tried to use our calling cards of expertise to cope with a perceived attack

on our authority--authority to design our way, authority to make sense of the classroom, authority to make authentic meaning. Louise describes how we were almost overcome, defeated, by the tensionality of false allegiance to the culture of video production; but more importantly, she surfaces the more dangerous tensionality of silent endurance:

> We were owning the problem!... and you're [Al] thinking you're inept, you're in the way, and you're standing on the cables, and he's getting mad ... and I'm thinking, "Well, I don't know how this goes, maybe his [way is right]," and I'm trying to protect the teacher; and you're [Katy] going home and thinking, "What have I done wrong?"... [managing the project]. And Roy is going home and drinking ... [laughter] ... because he's now taking a posture of "Well, I'm just the boom operator". So he took the stance of, "I'm backing myself off from this," because he was upset (Louise, 1993, April 15).

Exploring the tensionalities of false allegiances and cultural others now, in reflective collaborative conversation, reveals the existence of two completely different processes, and many more ways of telling those stories. For me, the story is one of shame that I, self-cast as the mother of the process, was not aware enough of the destruction to act :

> So when we think about the project .... We did a lot of shooting .... We started in April, we went out to sixteen classrooms, we were there for half a day in each classroom, that's quite a lot of time we spent actually shooting, and then in the studio after that. So ... when we said we loved every minute of it, that's not true! I mean, there was actually quite a lot that we didn't! (Katy, 1993, April 15).

But Louise, who always listens for what people in her family need, distinguishes one time from another, signifying the time that was, for her, the real work of collaborative process, "That's true, but I really differentiate that time from the time the four of us spent together .... when I think of <u>us</u>, that's what I mean ... and the project, for me, is us. And [the time we were involved with video production], that's noise" (Louise, 1993, April 15).

Struggling with the tensionality of cultural others required us to actually physically insert ourselves between the camera and the classroom and between the others and each other. It seems that the demands of institutional authority, in this case also the subtext of the cultural other, denied the authority of the teaching culture on which we were dependent for our content, for our meaning. Being at some point members of the teaching family, the makers of the QDisc intuitively knew that if we did not interfere with the unscripted life of the classroom, the design process would reflect the meaning made by teachers engaged in acts of questioning. We knew that sometimes a planned question is not asked because it is

not appropriate to ask it. We knew that some questions lead to different, unplanned questions, or completely new themes about which questions cannot yet be asked. We knew, in sympathetic empathy with the teachers, that the teaching was the important content and that it could not be meaningfully predicted, thus scripted, blocked, and neatly videotaped. Children who never volunteer suddenly have an answer--the linear culture of television production finds this confounding.

An example of the confounding which clouded the negotiation of school and classroom access, while almost forfeiting the trust among those we honored, was the issue of permission slips. The culture of television production understands the concept of permission as a legal necessity: I formalize my understanding that my image will be made permanent and accessible in a public medium. In this frame, those who do not wish to be captured in this way can simply be edited out later. For this purpose, legal waivers can be signed and collected just prior to the actual time of videotaping. For us, and for the schools, this required legal footnote had at the very least more serious cultural and substantive implications. Schools and school classrooms are, fundamentally, a community in which many voices contribute to social rules. Thus, legal waivers needed to be explained to the parental community, parents given an opportunity to seek additional information from the school administration and from the university, children given the opportunity to ask questions about their parts in the endeavor, and so on. What was known to us, was part of our knowing-about being in the teaching family, was unknown and foolish to the cultural other. The issue was forced by Louise, who:

> ... was an advocate for the teachers and the kids .... To you it was very important because you knew it was very important to principals and teachers and parents, that those permission forms get out there ahead of time ... that this get in a newsletter if it needed to go in a newsletter, that you could answer the questions of the parents if they had any, when they came back ... but what he wanted to do was, on the day of the shoot, take out the permission forms and hand them out. And we said,"Well, what if it turns out that some kids can't be in it?", and he said, "We'll just edit them out." One of the reasons that we didn't accept that was ... editing out kids was editing out the teachable moments on many occasions ... (Katy, 1993, April 15)

Relational Obligations

The negotiation of this issue, an early skirmish during the production phase of the process, was one of the first required insertions of care; and its resolution shaped the uneasy relationship which was to thereafter characterize the tensionalities engendered by

cultural others. The issue of the permission slips was fundamentally an issue of not understanding and not caring to come to know-about the particular culture that was, for us, determining the substantive content of the videodisc. In addition, the clear message of not-valuing the culture from which we came ourselves, and which was communicated by action and by, as Louise says, "toxic language", created a tensionality that threatened the continuation of the project. We speculated that the personal schooling experiences of the individual who, by controlling the camera, was controlling "everything to do with what you end up seeing" (Katy, 1993, April 15) informed his cultural expectations of the classroom and the interactions within it:

> ... his understanding of what teaching is probably stems from his own schooling. And if he grew up in classrooms where people were in five rows of five, where the teacher stood at the front ... that's the comfort level for him. And, of course, we weren't in classrooms like that. And it drove him crazy (Louise, 1993, April 15).

As a consequence, when he only brought one twenty-minute tape to an 80-minute high school class, which would effectively sabotage our design process of constructing the story from what we saw happen, he was saying, "You shouldn't need any more than that. I'm the only professional in this room ...." (Louise, 1993, April 15).

Yet, being of another culture did not condemn one to being a cultural other, in the sense of the tensionality described here. What was at issue was a personal willingness to approach the other, to engage in a caring relationship, to see and acknowledge the value of working within a frame of knowing-about. And this honoring was accomplished in acts of active valuing that somehow ameliorated the toxicity and tensionality. These acts made their way into the story of questioning because they carried in them an appreciation for the charm of a culture where most of the interaction is a surprise:

> Who was that fellow who did our art work? ... What a great guy. He's just working his face off to do a creative, wonderful thing [see, for example, the module on "Questioning Disabilities", a western cartoon melodrama]. We were surrounded by these people outside, kind of external to, the four of us, who wanted to make this fly ... (Louise, 1993, April 15).

Perhaps, the bliss of a collaborative process in which tensionality is absorbed is reflective of the people that are involved in its nurturance. For us, continued nurturing of each other, the teachers, and our partners in creativity, was a natural way of being in relation to each other, and part of the relational obligation of collaboration.

Carolyn Heilbrun (1988) talks about the issues that lie beyond the constraints of

acceptable conversation. Women, she suggests, are particularly sensitive to the topics that might hurt the feelings of others and tend to "make nice" when hurtful or uncomfortable talk threatens to impact the peace. Yet, the story of cultural others emerges more strongly in each narrative conversation, and it is Louise who seems least afraid of confronting the truth. In the following excerpt Louise returns again to talk of the tensionalities that most affected Roy, who was himself part of the culture of television production. We saw him trying to bridge the two cultures by taking on production, design, and collaborative roles at once, intentionally inserting himself between the tensionality of the cultural other, the teachers, and the other members of his Qdisc family:

> You had a vision for what this would actually look like. I mean, I didn't have a clue what the thing would look like as a package. So I had a confidence level about the teachers, and what we were trying to do, and the content, I knew that was in place. I didn't know how we'd access it or put it together ... but that may be why there were times when [he] was far more frustrating for you. 'Cause you knew the risk, right? You knew, if we don't get it right, we can't go back, we can't do this again .... And I clearly remember you at the boom, white-knuckled. On every shoot .... And I remember feeling so badly for that to be happening, because I didn't know what to do .... So what I did was just keep focusing on keeping the teachers and the kids going, and getting what we wanted, and assuring and encouraging them, and saying, "This is great! You're doing great!" That, I saw then, as my role, because I didn't know how to fix the other (Louise, 1993, April 22).

Inevitably, the tensions and demands of a false allegiance are played out in issues of power--power to deny the meaning of others and to make the meaning yourself :

> ... I always had the feeling that [he] didn't know what the hell we were doing. And didn't care, and so, if something flew by and he had a tape of it, good enough. And I can remember thinking, that's not the best example of a Level Four question. It would be nice to try something else but knowing that he wouldn't be available to that .... I don't think he knew what the hell we were doing at any point and certainly didn't value what we were doing (Al, 1993, May 20).

Traditional team processes, of which instructional design teams are one model, tend to rely on the imbalances of power related to knowing-about: someone is in charge who makes design decisions that reflect the meaning, the end-in-sight, of the client. For Roy, the process nature of this collaborative endeavor, in which the meaning was made from the reflective conversations in the editing booth about what we saw, engaged him in

transformative questioning about how he had always worked with a team. For me, as for Roy, my initial false allegiance to the knowing way of guiding team-based design process produced an almost schizophrenic way of being--loyal to my systematic instructional design family, as represented by the agents of institutional authority and accountability, and at the same time part, in my very being, of the family of teaching and of the QDisc Makers. These nested tensionalities required critical reflection for action realized in the ways I tried, and failed, to plan for the purpose of sharing meaning systems. It seems, however, in a collaborative process that I need not be solely responsible for what is not understood, shared, or enacted. Roy makes it clear that others had a responsibility too:

> Part and parcel, I think, of what we had as a basic team, was the ability to yield and to trust the other people. And, at any given time we were willing to do that without loss of face or ego, during the course of our production. When we got to the production point, and we got to an area that possibly there was some vulnerability by the actual technical production team, then I think that that person couldn't yield .... There's nothing more damaging to you than to not be able to understand something and to try to fight your way through it as best you can. And so, maybe, that's what he was doing. And maybe what he was feeling. But ... it seems like the people that we encountered wouldn't yield or trust (Roy, 1993, May 20).

Nests of Meaning: Inside Times and Outside Times, Institutional Accountability and Authority, and Counterfeit Acts

The foregoing discussion of the meaning systems not shared and not valued, and certainly not enacted in the process which would have given back to us the meaning made by the askers of questions in their classrooms, becomes a nested story of tensionality that encourages me to reflect on my knowing-about and my acting-in apparently opposing cultures. I ask:

> If we're thinking about what Roy just said, about trusting each other, well, that didn't happen by chance. I mean, we said that quite clearly, that we worked really hard on that in lots of ways--some of them were really planned ways and overt ways, and some were not. But we were skilled at it and we did it. But we didn't, of course, do that with him. What we did is we handed him over a vision that we expected him to understand, in the same way that we understood it. And to enact it ... (Katy, 1993, May 20).

At the same time, I have to accept that the meaning systems of others inside my

teaching/QDisc family might also not be part of my own story of collaboration. Inside Times and Outside Times

One such tensionality, surfaced retrospectively, almost casually, in the first narrative conversation and became the story of inside times and outside times: a story incompatible with my own story of collaborative process as sustaining of family. In this story, both Roy and Al tell of times in which they were not part of, or were even denied contribution to, the making of meaning for the QDisc.

In this excerpt Roy suddenly, it seems, tells of "feeling left out" of an essential meaning system--the interactive, collaborative writing of concept narratives (Jamieson, 1993): "I felt left out of the process, in the writing aspect, that you two did .... The reason why I felt left out is... I knew you guys were laughing and joking and having a good time, but you were still working" (Roy, 1993, March 18). I immediately deny his experience, "Didn't we do that, all four of us, all together? 'Cause we were working in my office, all four of us, around the computer" (Katy, 1993, March 18), because it was not part of my story of us all being in on everything all the time. Despite my protestations, however (and sudden dread that it wasn't this way for everyone.), Roy insists, "I felt left out because I was left out of the company and the friendship. Not the work. I knew my level of contribution would be 'the', 'and', and 'or'" (Roy,1993, March 18).

This is a story that Louise shares with me, assuring me that no one is ever left out. Now some frustration punctuates Roy's story, because Louise and I together will not accept Roy's version of the story as true. In fact, we reconstruct actual times and places to convince him that he was there: "You know, I don't remember it that way at all. What I remember is that the four of us working on everything, didn't we? .... Didn't we all crowd around in my office writing every little ..." (Katy, 1993, March 18)? Finally, Roy convinces us that he was, in fact, left out of part of the process, the writing of the accompanying manual, and, more importantly, the building of personal allegiances and the sustaining of the family that continued to mark this work. But he must provide evidence to make us believe that we could have created an inside time for ourselves, an allegiance within an allegiance, which by definition created outside times for the others: "Didn't you guys write up a manual that went with it" (Roy, 1993, March 18)? And we must admit that we had forgotten this part of our story.

The reflexive character of the narrative conversations reflected the design conversations in that the story told once is nested into the stories told before, and are beginnings to the stories told around them. After Roy's story of being outside the inside

time of manual construction, I seek further evidence from another family member that these outside times were indeed created, "Now the other thing I remember is Al, after that, you called me and said 'I don't think that I need to come out to the classrooms' .... and I think that Louise and I tried to talk you into it ..." (Katy, 1993, April 15). Al confirms that his personal practical knowledge did not include, for a time, the actual meaning-making in the classroom, "It was probably more of a reaction to the sense that I had that I wasn't contributing very much on the technical side or knowing the teachers, and with all these cables around I was in the way more often than not ..." (Al, 1993, April 15).

Later in this same conversation, I still try to fit stories of exclusion into my own collaborative story of total inclusion, this time wondering whether the exclusivity of collaborative processes might not be destructive to institutional authority (1993, April 15):

L: Oh, it's a club .... I mean, it was, wasn't it? But we would kind of come in like locusts....

K: ... and it might not be a positive thing to have in your work environment, necessarily. A collaborative group. Those are just some ....

L: Because it causes others to ... feel excluded....

K: ... and in a sense, you know, a collaborative group is kind of aggressive .... they're sort of inward looking and feeling, so in a sense we were aggressive too. You know, get out of our space ....

The next time we meet, I show that I am not only able to nest the inside times/outside times story with my own story of the fierce inclusiveness of collaboration, but that I can also nest Louise's story of reconciliation of times of energy and Roy's suggestion that a collaborative process means setting a place at the table so that even absent voices are heard:

> Roy, at one point you said, "I felt a little bit left out." In fact, you said that twice. Well, I implied it once, because you said, "You know, you guys are doing what you always did. You would talk, and I would listen." And then, later on, you said, "You did the writing, and I felt left out." And Louise and I spent a long time saying, "Everybody was there! What are you talking about?... We did this, and we did this, together ..." And finally, you convinced us that there was a situation where Louise and I did the print support, and we did it alone.... So, in this conversation, this comes up again, because Al is saying "I didn't want to go into the classrooms. You know, I felt that that wasn't ... I wasn't happy there".... it seems to me that Louise and I think that it would be awful, and we don't want to

> hear, if anybody at any time felt that they weren't completely part of this .... if it's not part of our story, it's hard for us to hear that, and we sort of deny it for awhile ... (Katy, 1993, April 22).

Roy assures me that:

> ... we became so ... attuned to what the other people were involved in and thinking ... that even when you guys were working together, or when we were someplace else ... the understanding was that that person actually was really there. It's like we are four even though we are three or we are two ... (Roy, 1993, April 22).

Accepting Roy's and Al's version of events, we are encouraged to tell the new story of the real work of collaboration, which is sustaining of empowering, caring relations with others, which permits outside times but requires inside times:

> Well, the definition of collaboration isn't joined at the navel or the hip and all walking together at the same time, it's in the product that you're doing, and every person collaborates with the creativity and ability that they can put forward to it. So, if someone wants to withdraw... (that's okay) ... but when someone withdrew from something they didn't withdraw from friendship. That's the thing that was always there ... and that was a large part of it in terms of that collaboration ... (Roy, 1993, April 22).

Considering the social work of collaboration, the creating and sustaining of social relationships, to be the real work, even the product of the collaborative process, leads to the fifth story of tensionality in the making of the QDisc: the tensionality of institutional authority and accountability. This tensionality, nested in the tensionalities of cultural others and false allegiances, and even in relational obligations, existed not because the project goals of the institutional authorities were unclear or were in danger of not being met; but because the process of achieving those goals would forge and renew allegiances seen as threatening the integrity of their ownership. In this case, collaborative processes are institutionally dangerous because by their nature institutions demand one loyalty, one clear allegiance. But by its nature, a collaborative family demands a personal loyalty, a relational obligation, that will take precedence over false allegiance to, for example, preservice or inservice teacher education. While the relational obligations of the collaborative process do not, in the minds of its family, preclude loyalty to other families (the teaching family, the instructional design family, the television production family, the family of university professors), the authority of the institution is feared by its holders to be undermined when its members find power and fulfillment in other fidelities.

Institutional Accountability and Authority

I grew up in the teaching family of my mother, the teaching home of EPS. In some sense, this inter-institutionally supported project was a way for me to reconnect with the family and home I had left (I thought only temporarily) five years before. That this process goes beyond the mere production of an interactive videodisc, a product never in doubt, was at first an implicit goal of mine, but later became the more important explicit goal of the group. For me reentry into the conceptual family of teaching, through reconnection with EPS, would be allowed only if my teaching pedigree was made explicit by my design praxis and honored by my collaborative family of QDisc-makers. This legitimation would be accomplished by valuing as design process the personal professional knowing-about of the conversation of teachers together, over the instructional design expert's systematic squeezing out of content information. This acknowledgement of my teaching pedigree served not only to move the collaborative design process along, but significantly contributed to the evening out of expertise in the design group (Haughey, 1993). However, the authority of the institution that owned my first loyalty, as a member of the instructional design family and the television production family and the preservice teacher education family, suspected betrayal in my collaborative design praxis. This institutional fear of denied and renewed allegiances constituted a layer of tensionality for the group that was absorbed by me, the so-called project manager, as continuing exhortations to be institutionally accountable, to "remember who I was working for." Not grasped by institutional authority was the institutional accountability engendered just because of the personal accountability to each other that is demanded by the collaborative process. We would produce a videodisc to be proud of because to fail to do so for the institutions would be to fail each other. In this process, we would even out the expertise and thus the accountability because it was unthinkable not to honor and value each other's knowing. This process of evening-out of expertise becomes a serious threat to institutional authority, though, because hierarchies of knowing-about are evened out in the process. Institutional authority can only be held so long as knowing-about is held to be institutional property and hierarchies of knowing are not shared or evened out--and since this is the praxis and product of the collaborative process they are fundamentally feared, or at the very least suspected. From the institution's point of view, and this, I think, is entirely unexpected, an interinstitutional collaborative process by its nature makes inside knowers and outside knowers. The institution never expected to be the outside knower--it is a serious threat to their authority and ownership of the expertise and perceived allegiance of their knowledge

workers.

One way that the institution can seemingly regain authority over the collaborative process, is to de-value its products, and one of its products is the way that it makes meaning. This is the institution's story of not getting down to work, and of having too much fun. A visible point of attack is the social-ness of collaboration. Curiously, institutional authority was early established in a social setting, during which the team was legitimated over lunch in a popular restaurant. Later, the legitimacy of working in a social setting, for example during a breakfast meeting at a restaurant, was strictly denied. Obviously, a social setting is a legitimate power setting in which one can be initiated into institutional accountability but is not permitted as a context to the workers themselves:

> We'd met a few times beforehand, and we'd talked about what we might want to do, and we'd met as a threesome over coffee, and I'd come to visit you downtown, and you'd come over here few times, and so we were already starting on the project, and we had it all worked out when we were actually going to meet, we were going to start in October ... we'd already made those arrangements. And then [the authority] stepped back into it ... then sort of went over the same ground again, but took possession of it this time ... going through this whole thing that we'd already informally started to work out. It's kind of an accountability thing, I think, they have to be seen to be on top of this, so that we don't waste .2 of your time, and just have fun (Katy, 1993, March 18).

A second way that institutional accountability can attack the process is to question the changing boundaries of allegiance of the members of the group. This was more of a problem for me both personally and professionally because I was unsure of the legitimacy and value of my allegiances in the first place. Allegiance to systematic instructional design process would require me to take control of the actual process and deny the coming-to-know-in-conversation that was collaborative process; allegiance to television production would require me to script classroom sequences and deny the teaching process; allegiance to the Centre meant forsaking my teaching home. For us, surfacing expected allegiances was an important part of the real work of collaboration, because that allowed us to move beyond false allegiances to the heart of the process--the caring relations that demanded we honor the calling cards of each other and the questioners in the classroom. This surfacing, ironically enough, could be seen as building trust in traditional group processes and task analysis in systematic instructional design processes, processes of institutional accountability, but were intentionally undertaken as active valuing in the collaborative

instructional design process. The point is, although the motives of the agenda-conversation in different contexts are radically different, the institution can really relax and be assured that the results will advance the goals of accountability: the product will be made.

Collaboration-by-the-nape-of-neck, a brainchild of institutional authority, may unintentionally lead to the creatively constructive blending of allegiances and the getting on with the real work of collaboration (which certainly includes having fun). More likely, however, coerced collaboration leads no further than the agenda-conversation described above, and a process which mitigates against the coming-to-know-about that collaborative processes can achieve. Coerced collaborative activities lead to counterfeit acts and contrived collegiality, the final story of tensionality, but even a process to which we were fiercely loyal required us to play by the rules of institutional authority and accountability.

Counterfeit Acts

Fundamentally, we understood our task much differently from the others that have been the focus of much of this discussion. The tensionalities created by the mismatches in intention, in understanding, and in doing were, for the most part, resolved by the pressing of the videodisc and its subsequent implementation. After all, who really cared how it had come to be made, as long as the authority of the institutions was intact and the process was seen to be accountable?

In the living of the process, however, we came regretfully to that place of public accommodation where we played by false rules and engaged in counterfeit acts, because our commitment to our family, the family of teaching and questioning and making of a disc on questioning, required doing what had to be done to sustain the project. It was in this that we understood the power of collaboration to transform. Louise finds a way to talk about the failure of the cultural others to engage in the making of a questioning disc as a personal act of transformation:

> You know, I was thinking, what if someone told me tomorrow, that I had to go to the Ford company, and do a laserdisc on, how they put upholstery into their cars, okay? You know, something just totally alien to me. Truly, in my heart of hearts, I don't believe that I would work any less collaboratively on a project like that. I mean, I would make it my business to get to know the people, and to be interested in their work, and to ask a lot of questions, and sort of throw yourself in ... and suddenly, it is interesting. That to me is the difference. If people involved in the process as well as the product, are people that are interested in other people, that makes a difference. That's the camera lovingly resting ... that's the words that

come out in a dignified way, for people to say. That's the humor, do you know (Louise, 1993, May 20)?

And this fundamental failure is related, as is the meaning of collaborative process, to a relational obligation: a relational obligation that is moral in its demands for actions based on the caring and commitment to hold harm-less those with whom you are engaged in the work of the process. I talk about how I failed in my moral, relational obligation to my QDisc family to keep them out of the harmful way of the cultural other who seemed to be sabotaging our story, while they assure me that their understanding of their relational obligation to me is to devolve the guilt and to place it on the shoulders of the real one to blame--he who was forcing us into the counterfeit act of scripting, making insertion between the teachers and the production process necessary, of trying to make false meaning of videotaped classroom segments:

> That sort of resonates with my previous comment about not ever coming to find out what we had in mind, or getting involved, or meeting us halfway, or an eighth of the way .... I can remember when we were doing the shoots,thinking, that up to that point this project was marvelous, nothing short of marvelous. And then thinking, "Boy, we're right on the bubble here. And it could work, or it might not, and that is going to depend on how we get along with (the other), and how we get him to do what we had in mind." But those were really, really difficult times. And every time we went out for a shoot I guess I had in the back of my mind that this might turn out to be a total wipe-out. When you armchair this stuff and you write out questions and classrooms are well-behaved and everything is just perfect .... And you start getting out into real classrooms and that's not the way they are, and so that's another source of concern, that we wouldn't get what we wanted (Al, 1993, May 20).

How awful, to find out that for at least half the time we were together we were afraid the bubble was going to burst. And here I was, by my counterfeit acts and false allegiances, trying to hold together the enacting of our collaborative plan, which was to make the story be told by living it out in the classrooms. Because the process, for us, <u>was</u> the design, we understandably felt frightened and subverted when we were disempowered by the filter of the videocamera and the eye that was looking through it:

> ... but, you know, it's just that we all know that at some level, we didn't expect anything different. We didn't even have to say to each other, "We know that kids are going to answer, that you didn't expect to answer, or a teachable moment's

> going to come up and that'll take 11 minutes"... we knew those things and didn't have to talk about them. But, does someone who's not part of that culture know them (Katy, 1993, May 20)?

Al, like Louise, tells the story of counterfeit acts from a personally transformative perspective, that of being in a dysfunctional family that must engage in cohesive public acts:

> It isn't always power either, per se, it's like a family that becomes dysfunctional, and frequently it's likely one abusive parent or something like that, where the family sort of adjusts to preserve the family structure. And so they will insulate the person or they will do all sorts of things ... and that's sort of what happened with this group in working with (the other). We knew that we had to adjust for his behavior. So, in a sense, then, our efforts go to insulating him or isolating him or carrying on despite him ... but it's the same kind of influence that a dysfunctional member of a family has. And it comes off sort of as power, I guess. In the sense that his behavior had undue influence on what we did. I was talking about the tension that I had in our shoots, we're getting into the situation where we didn't have the power to control everything, or to make it the way we wanted it, necessarily. That was a source of tension (Al, 1993, May 20).

Restorying the Making of the QDisc

Like Louise, and Al, and Roy, I have been transformed by this particular time, of a year's duration, when we came together by institutional authority to create a videodisc of questioning in the classroom. The institutions had intentions and expectations that brought us together; in the playing out of these we were faithfully accountable to our professions. But the unaccounted for happened--the process shaped and defined the ways we would forever after work with others in relational obligation and in this transformation threatened the maintenance of institutional authority. These transformations worked on us and by us caused us to work outside the acceptable constraints of the cultures that sought our allegiance, the tensionalities forced us to come to know-about collaborative processes in ways that were painfully de-constructive.

The retelling of the story of the making of the QDisc, in extended, reflexive narrative conversation, surfaced for telling aloud the tensionalities that are inherent in the bonding of those that engage in collaborative endeavors. The story is retold now, after it has been lived, through the meaning filters of four people who have, in some way, relived

it in every subsequent relationship in which they are engaged in making something of meaning with others. In this transformative sense, collaborative process has deeper moral implications.

This account began with the realization that the making of the QDisc had to berestoried, and the tensionalities that shaped our praxis acknowledged. In our fifth research conversation we found ourselves finally able to confront the myth of the divine transformation of our design story, via classroom videotaping sessions, into the finished story of the QDisc. I start by admitting that I was aware early of the tensionalities that were framing our classroom experiences and that I shared my anxiety privately with individuals in the family, who were all (Surprise!) well aware of the cracks that were appearing. Yet, as in families, silence is a way of not bringing out of Pandora's Box the full wrath of something that will not be stuffed back in:

> Well, of course I was dealing with it day by day .... But what I did was worry about what it was that I wasn't doing that was to bring him in. It's not like these cracks sort of appeared at the end, they appeared right away, because Louise and I would talk about what he was doing in the schools and why, and Roy and I would talk .... Roy actually wanted to leave the project at one point... (Katy, 1993, May 20).

Telling how much we were affected by this tensionality and how unwilling we were to acknowledge it is a way for us to reaffirm our deep moral connections with each other. At the same time, however, and constructively so, the experience (and the telling of it) is transformational in requiring a re-orientation towards similar tensionalities in our continuing personal and professional families. For example, as a principal, Louise deals with conflict head-on:

> Probably one of the things we did wrong was being too nice .... What we should have done is bring him into the room and say, "We have had enough of this behavior .... This is unprofessional behavior. And if you continue this, it will go out the door. If you stop it, it will stay in this room." And I think, probably, if I were a principal, had been, then, that's how I would handle it now (Louise, 1993, May 20).

Ultimately, the power of the metaphor of collaborative instructional design as the sustaining of family is that it locates such a process in a deeper moral and social context of care for those with whom you are entwined in important work. And as such, the collaborative endeavor is reflective of, takes its forms of doing-with what you know-about

from, the lives of those engaged in the work. The personal and practical tensionalities in the lives of the members of a collaborative family are reflected on every level in the collaborative process and are nested in the doing of the work of the collaboration. Functionally, this acceptance of the creative synergy of nested lives needs to be valued by the institution.

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CONCLUSIONS

TWO METAPHORS OF INSTRUCTIONAL DESIGN

> Once we let the voice of another enter our psyche, we can no longer claim a detached or objective position. We are affected, changed by that voice, by words that may lead us to think or feel a variety of things--that may turn our thoughts in new directions .... But by taking in the voice of another, we gain the sense of an entry, an opening, a connection with another person's psychic life. In this relational reframing ... relationship or connection is key to (psychological) inquiry. Rather than blurring perspective or clouding judgment with feelings, *relationship is the way of knowing, an opening between self and other that creates a channel for discovery, an avenue to knowledge* [italics added].
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> Mikel-Brown & Gilligan, 1992, p. 28.

Four individuals, from two institutions, came together to design an interactive videodisc on questioning strategies to be used in preservice and inservice teacher education. The outcome was already articulated at the level of institutional accountability and, accordingly, release time was bestowed, a project room was identified, and the resources of the institutions were placed at our disposal. At the end of one academic year we were to emerge from our lab, videodisc in hand. The institutional authorities also hoped that by aligning the resources and structures of their institutions in this way a new and better working relationship would emerge between the teacher educators of the Faculty of Education and of Edmonton Public Schools.

Collaboration as the Sustaining of Family

All four individuals were teachers who held certain images of teaching in common. These commonalities were surfaced in honest, probing conversations which were the process of instructional design. These conversations depended on the telling of life stories for content--lives in classrooms, lives with students, lives with family--and so the lives of the collaborative designers became the content of the design story and the story of the process of the design. The telling of our lives was a social process of culture-building, for which we created new patterns of meaning through language and its tools, like humor. As

Brody and Witherell (1991) remind us, our stories formed the tapestry of this culture. We nested into each other's stories, the telling of our ways of knowing-about teaching as a caring, moral activity, and learned about ourselves in the telling[1]. It is this metaphor of family, the creating of family and the sustaining of family, that bounds and informs the story of the collaborative instructional design process, and provides a context for understanding how the work is carried on, sometimes at cross-purposes, alongside the demands of institutional authority. It is also the metaphor of family that can explain how the acts of its members, counterfeit acts and temporary false allegiances, can be forgiven, and held hårm-less.

Family is a metaphor at odds with a rational, systematic field like instructional design. How can a metaphor framed by the intimate connections and blended narratives of the family represent institutionally-authorized, time-constrained, product-oriented work, such as the design and production of a videodisc? Remembering and telling the stories of this project from within this metaphor validates the work of belonging, gives authority to the power of intimacy. As Max DePree tells us in "Leadership is An Art" (1990), "being an insider is not a spectator sport. It means adding value. It means being fully and personally accountable. It means forgoing superficiality" (p. 70). In a collaborative process it means helping to construct and participating in morally obligated, caring relations with your partners, connections that resemble the structure of the family.

The family is generally recognized as a social structure, in many ways unique to the culture it helps to define. In this sense, the building/sustaining of the family of the QDisc-makers was a process of culture-building. This family became an agent of the culture of collaborative instructional design by invoking the rituals and myths understood by all to be strands of meaning that bound us together. These patterns of discourse, built over time, can be invoked at any time to remind family members of shared meanings and unique history.

Narrative is the primary scheme by which humans make meaning of events and name those meanings in the language, the conversation of the family. Conversation gives character to every human family, it is a consummately social artifact created by the social interaction in which it takes place. Because it is so social, it is always generated and maintained in community life, the unique life of the family. Families maintain their unique

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1 Our stories of teaching were the content and process for the videodisc design, and the story-based research process paralleled the instructional design as we came to new understandings of ourselves and each other.

histories by building patterns of conversation over time, patterns that may seem strange to outsiders but that link the family together in nests of shared meaning. We built these patterns with the artifacts of culture, language and conversation and memory. We invoked these patterns with humor, with special words and phrases, with body language, and eventually with the artifact in which all meaning resides--the videodisc. We participate, we are characters in each other's stories. We can contest each other's memories (Campbell, 1993), but in sharing the memory, validate it. We set a place at the table for one another each time we meet, in our collective memory we hold a place for each one. We can be apart and far away but family memory remains constant through time and distance.

For this family, the family of the QDisc-makers, I had come to see myself as the matriarch, the mother. This is a feminist construct, based on the moral orientation described by Gilligan (1982), in which all my actions and choices came from personal commitment to the nurturing and protection of those with whom I am connected in care. I was responsible for the happiness of my family. I protected them from the attacks of the institutional authorities. I absorbed the demands of institutional accountability. Sometimes, I heard hard words and I re-shaped them into softer words that I could repeat to my family. Like the mother of a dysfunctional family, I thought that the attacks I turned aside were not felt and that my family never knew about acts of destruction and disharmony. I thought we were all insiders and never outsiders and, most of all, it never occurred to me that I was not solely responsible for the functioning of my family in the larger social contexts in which we lived. I didn't see it then, but I patterned my silence of endurance after the strong women in my own family, who kept secret the depredations of alcohol, financial hardship, and dysfunction. It had never occurred to me that this strategy was not one of power, but of fear--fear that naming life's challenges would give them power to harm the family.

But, in retelling our story in retrospective, reflective conversations years later, we all learned of the tensionalities that were part of the life of this family. Perhaps I, as Mother, like my mother, was the only one reluctant to surface these. The process of reconstructing our project biography was cathartic in the way that family reunions often are occasions in which memories are contested and myths reconstructed in more inclusive stories--stories that then become the sacred stories of the family.

In our fifth research conversation we found ourselves finally able to confront the myth of the perfect design story. I start by admitting that I was aware early of the tensionalities that were framing our classroom videotaping sessions, the times when we

had to include cultural others in our process. I recall how I was trying to contain the chasm opening up between the design team and teachers, on one side, and the technical crew, on the other:

> I was dealing with it day by day .... I worried about what it was that I wasn't doing that was to bring [a member of the technical crew] in. It's not like these cracks sort of appeared at the end, they appeared right away, because Louise and I would talk about what he was doing in the schools and why, and Roy and I would talk .... Roy actually wanted to leave the project at one point ... (Katy, 1993, May 20).

I shared my anxiety privately with individuals in the family, who were all well aware of the cracks that were appearing. Louise remarks on the silence strategy as a coping mechanism of the dysfunctional family, in which:

> ... you can't kick the father out, the alcoholic abuser, or whatever he is. So then you've got to deal with him. And that is how we felt, we worried about his next tantrum ... the next way he'd sabotage, the next person he'd yell at, and hoped that it would be us rather than a teacher (Louise, 1993, May 20).

In such families, bringing the tensionality into full awareness, where destructive action can not then be avoided, may be the only possible way of continuing to function productively.

Telling how much we were affected by this tensionality and how fearful we were that the project would fall apart is a way for us to reaffirm our moral connections with each other. Roy recognizes that:

> ... one of the reasons I think we weren't talking about it is because we were positive people, and we knew that if we dwelled too much on this thing, that it could rip us, and the group, apart. And so, as a result of that we did our best, to manage the situation in a kid-glove way (Roy, 1993, May 20).

Al agrees that "the risks would have been too great" (Al, 1993, May 20). But at the same time, the experience (and the telling of it) is transformational in requiring a reorientation towards similar tensionalities in our continuing personal and professional families. Louise knows now, that as a principal:

> .... you can only not ignore it for so long, at some point, you have got to get in and be a conflict manager, at least, if you don't have the ability to bring about conflict resolution. You do have to get it right on, head on, and we didn't do that (Louise, 1993, May 20).

Ultimately, the power of the metaphor of collaborative instructional design as the

sustaining of family is that it locates such a process in a deeper moral and social context of care for those with whom you are entwined in important work. And, as such, the collaborative endeavor is reflective of, takes its forms of doing-with what you know-about, from the lives of its family members. The personal cannot truly be disentangled from the practical--the lives of the members of a collaborative family are reflected on every level in the collaborative process and are nested in the doing of the work of the collaboration. Functionally, this acceptance of the creative synergy of nested lives must be authorized by the institution. In this exchange, Louise asks whether a group confrontation of the tensionalities would have made a difference, and I suggest that "it would have been an awful confrontation. It would have made everybody feel really horrible" (Katy, 1993, May 20). Then, it dawns on me that strategies used to deal with certain personal relationships are inevitably reflected in professional relationships as well:

> In a sense, though, you don't need to point out his behavior to him because he's aware of it. Not that he changes it, or is really reflective about it, but he tries to make up for it in other ways. I'm familiar with that style ... verbal abuse, and making up later with niceness ... and you end up owning it, and wondering, "What did I do wrong?" (Katy, 1993, May 20).

Our lives reveal a narrative unity that informs all that we do and all that we understand in our relationships with others. Surfacing the values of this meaning system in constant collaborative conversation shows how and why we make moral choices for action.

Collaborative Instructional Design as Conversation: A Transformative Social Activity

Writing this dissertation, nesting once again with my collaborative design team partners, I came to understand my instructional design praxis from within two related perspectives, that of the collaborative process as the sustaining of family, and that of constant, collaborative conversation to understand the "stories that lives tell" (Noddings, 1991).

Conversation is the way to name what we know and to bring it into the full consciousness of others with whom we work. Conversation reveals stories that tell us about our lives. This grounds the theory of practice in the experience of our everyday lives, celebrating the beliefs and feelings, the embodied knowing on which we act. Collaborative conversation is reflexive in that it demands self-disclosure, surfacing memories that can be contested so that stories can be re-lived and re-told. The lives of

participants in the conversation are themselves subjects of the inquiry. Conversation-as-design is, for me, a feminist construct because it draws upon intuition, empathy, and the ethic of care for the others with whom we are engaged in conversation. Conversation resists the tendency towards the dualism of systematic models of instructional design and is, therefore, not authorized by these systems.

Conversation is the metier of the collaborative process and the means by which the process is sustained through active valuing. Active valuing of all collaborative partners also makes compensatory participation possible. We did not all have to present at all times for our stories to be remembered, and in the end we could not say "this one was my idea." As families do, we made it possible and comfortable for individuals to occasionally withdraw and re-energize. This synergy of collaboration may not sit well with the institutional authorities, however, because the possible is unattainable to those who are landlocked in institutional accountability. Not surprisingly, collaborative processes are seen to subvert institutional loyalties, or perhaps transcend them, in their commitment to the enduring obligations of relationships. For the makers of the QDisc, certainly, membership in nested teaching families defined process and product and, ultimately, futures.

As I tell this story, I think about the nested families from which I come, and wonder about the families I will enter in the future. The stories I've told are all in the first person plural. They are all written from the standpoint of my nested personal and professional lives: lives as a single mother; a newly divorced woman who's finding her personal power; a teacher returning to the profession; the daughter and granddaughter of teachers who lived teaching as a political act; the sister of feminists who continue to live out the political and moral dimensions of teaching; a teacher educator grappling with my own moral conflicts; a practicum coordinator trying to forge new relationships in a different country, a different culture; a member of a teaching family trying to understand how an instructional plan is made. Writing these stories and having others read them has reminded me of how embedded I am in this narrative. I tell about the lives of other members of the QDisc family--they leave their schools, take on leadership roles, negotiate new relationships, build new houses, retire.... and yet I write their stories forward while my own looks back.

Learning my life as I write has been a goal of this process. And in doing this I understand better why I had resisted the models of instructional design with which I was supposed to frame my own practice. These were models that denied the personal--the experiences brought to the plan by all members of the team, the designer, the content

experts, the production crew. Even the learners' responses were anticipated. But a model of constant collaborative conversation required us to name those experiences and blend their meaning into the story of questioning in the classroom. In this process we learned about asking good questions but, more importantly, we learned about the kind of praxis that emerges from the intimacy and nurturance of a collaborative family. This restorying, this research, was not meant to take apart and examine the workings of such a group, but was a confirmational and afirmational process of nesting again into each other's lives.

I saw the design process as a sustained conversation which was reflected in the design itself, and in the research model. These were threads woven together to make the family tapestry. And I understood the hard work of the conversation in making a family. In this family, the artifact, the videodisc, became a secondary goal that would evolve from the process, rather than a product which would guide the process. This was demanded by the familial ties, the ethic of caring regard of the family.

Growing into each others' lives, however, alarmed the institutional authorities for whom institutional loyalties must transcend all other relationships. To these authorities, membership in other cultures was suspect, a potential betrayal. In a sense, their fears for me were realized, as I was reminded of my teaching pedigree, and returned to my teaching home.

Going home: It started with a summer course with Dr. Richard Butt of the University of Lethbridge, as I wrote for the first time about my life growing up in a family of teachers. With new insight I began to examine my design praxis in the context of my remembered teaching story. Soon, I knew that I had to reconnect to the life of the classroom, and I did, choosing to teach teachers. I hold up my teaching to memories of my teaching family, the teachers who gathered in the living room of our home on 132nd Avenue. I let the memories flood me--teaching as a political act, as moral choices lived out. Believing that my students already have a rich understanding of life in classrooms, helping them surface their knowing and examine it in the socially interactive frame of collaborative conversation. Refusing to be the intellectual authority. Teaching and learning together in cooperative groups, negotiating the forms of their knowing. Seeking collaborative links with rural schools. Coming full circle, nesting again in my teaching family, coming home.

This is the story of the making of the QDisc, and the story of the makers of the QDisc. It is a story of coming home. It will be challenged by the defenders of Schon's (1983) Technical Rationality because it is subversive. But, it <u>is</u> my story, and I'm sticking to it!! And so, in the end, what can I say about the instructional design process to inform its practice? I can say: The practitioner <u>is</u> the practice.

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APPENDIX

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French as a Second Language
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Instructor, Department of Elementary Education, University of Alberta 1992

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Instructional Developer, Instructional Technology Centre, University of Alberta 1991-93

Development of distance delivery courses, coordination of distance delivery activities for campus, principal researcher for VISIT trial practicum project; instructional designer for development and production of videodiscs and accompanying materials for post-secondary *Exemplary Teaching* project and related implementation and research activities

Utilization Consultant, Instructional Technology Centre, University of Alberta 1983-91

Planning and management of Faculty's individualized learning laboratory, collection development for professional teaching resources library, related faculty inservice and consultation, instructional design for interactive and computer-based teacher education materials; liaison with educational and governmental agencies, member of Centre management team

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Campbell-Bonar, K. (1993). The collaborative milieu of instructional design. Submitted to Educational Technology.

Bowers, L., Campbell-Bonar, K., & Fishburne, G. (1994). Preparing a videodisc of exemplary teaching: Ethical issues in design and production. In preparation. (A collaboratively authored article based on the design process for the *Exemplary Teaching* videodiscs)

Campbell-Bonar, K., & Olson, A. (1992). Collaborative instructional design as culture-building. Canadian Journal of Educational Communication, 21(3), 141-152. (This journal is the principal journal for the field of Educational Technology and Communications in Canada)

Campbell-Bonar, K., & Grisdale, G. (1991). Applying principles of collaboration to videodisc design: Profile of a successful project. Canadian Journal of Educational Communication, 20(3), 189-203.

Engel, D., & Campbell-Bonar, K. (1989). Using videodiscs in teacher education: Preparing effective classroom managers. Canadian Journal of Educational Communication, 18(3), 221-228.

Campbell-Bonar, K., & Tang, T. (1989). Towards an integrated approach to instructional design: The evolution of *Human Development*. Proceedings of the annual meeting of the Association for Media and Technology in Educational Communications, June, 1989

Campbell-Bonar, K. (1988). An introduction to the videodisc. Training and Communications Bulletin, Fall/Winter. (by invitation)

PRESENTATIONS AT PROFESSIONAL MEETINGS

Campbell-Bonar, K., Jamieson, S., & Olson, A. (1994, March). Telecommunications and an alternative practicum model: Collaborative entrepreneurship in teacher education. Paper presented at the annual national meeting of the Society for Technology and Teacher Education, Washington, D.C.

Campbell-Bonar, K., & Jamieson, S. (1993, March). Technology and teacher education: A practicum-based *Powerbook* project. Paper presented at the annual meeting of the Western Canadian Association for Student Teaching, Vancouver, B.C. (The annual meeting for those involved in practicum programs in British Columbia, Alberta, Saskatchewan, and Manitoba - includes faculty in teacher education programs, Deans, practitioners, and students)

Campbell-Bonar, K., & Olson, A. (1993, January). Collaborative instructional design as culture-building. Paper presented at the annual meeting of the Association for Educational Communication and Technology, New Orleans, LA. (The annual national meeting for professionals and academics in Educational Technology, School Librarianship, and Industry and Training)

Campbell-Bonar, K., Kysela, G., & Tang, T. (1992, June). CMI with multi-media support. Paper presented at the annual meeting of the Alberta Computer-Managed Learning Users' Group, Banff, Alberta.

Mappin, D., & Campbell-Bonar, K. (1991, February). Inter-institutional collaborative issues in instructional design. Paper presented for the annual meeting of the Association for Educational Communication and Technology, Orlando, Fl.

Olson, A., & Campbell-Bonar, K. (1991, March). A collaborative videodisc project in teacher education. Paper presented for the annual meeting of the Western Canadian Association for Student Teaching, Saskatoon, Saskatchewan.

Campbell-Bonar, K., & Grisdale, L. (1990, June). A collaborative model for interactive videodisc design. Paper presented at the annual meeting of the Association for Media and Technology in Educational Communications, St. John, Nfld. (The annual national meeting for professionals and academics in Educational Technology, School Librarianship, and Industry and Training in Canada)

Mappin, D., & Campbell-Bonar, K. (1990, February). Using models of planned change as a design factor in developing videodisc materials for use by teacher educators. Paper presented at the annual meeting of the Association for Educational Communication and Technology, Annaheim, CA.

Campbell-Bonar, K., & Tang, T. (1989, June). Towards an integrated approach to instructional design: The evolution of *Human Development*.. Paper presented at the annual meeting of the Association for Media and Technology in Educational Communications, Edmonton, Alberta. (I was on the planning committee for this conference)

Campbell-Bonar, K., & Jamieson, S. (1988, June). Attack of the killer technology. Paper presented at the annual meeting of the Canadian Laserdisc Conference, Calgary, Alberta. (The annual meeting for representatives from business and industry, education, post-secondary institutions, and media representatives in Alberta)

Engel, D., & Campbell-Bonar, K. (1988, June). The future of protocol materials: Using videodiscs in teacher education. Paper presented at the annual meeting of the Association for Media and Technology in Educational Communications, Halifax, NS.

Campbell-Bonar, K. (1988, May). After CML: What next....? Workshop presented at the semi-annual meeting of the Alberta Computer-Managed Learning Users' Group, Edmonton, Alberta.

Campbell-Bonar, K., & Roder, R. (1986, June). Interactive videodisc design: Lessons learned. Paper presented at the annual meeting of the Alberta Laserdisc Conference, Calgary, Alberta.

Mappin, D., & Campbell-Bonar, K. (1985, June). Change strategies and instructional development. Paper presented at the annual meeting of the Alberta Laserdisc Conference, Edmonton, Alberta. (As above; I was also on the planning committee for this conference)

Mappin, D., & Campbell-Bonar, K. (1984, June). Implementing computer-assisted/computer-managed instruction in an undergraduate educational psychology course. Paper presented at the annual meeting of the Association for Media and Technology in Educational Communications, Calgary, Alberta.

PROFESSIONAL ACTIVITIES

Member, editorial board, Canadian Journal of Educational Communication

Representative, School of Education, SUNY-Geneseo, *Young Authors & Storytellers Festival*

Representative, School of Education, SUNY-Geneseo, *Tri-County Teacher Resource Center, BOSCES*

Representative, School of Education , SUNY-Geneseo, *SCAP Committee*

MEMBERSHIPS

Society for Technology in Teacher Education
Association for Educational Communications and Technology
Association for Media and Technology in Education in Canada
New York State Teachers Association
Phi Delta Kappa
Association for Supervision and Curriculum Development

GRANTS AND AWARDS

University of Alberta *Computing & Network Services* ($20,000) 1993
Edmonton Telephones/Northern Telecom (6 *VISIT* trial sites) 1993

University of Alberta *University Teaching Research Fund* ($10,000) 1993

University of Alberta *University Teaching Research Fund* ($10,000) 1992

Both of these grants were for the design, production, and implementation of the *Exemplary Teaching* videodiscs and related materials, and related research activities

AMTEC *Award of Merit* for Classroom Management: a Case Study Approach 1989

INSTRUCTIONAL DEVELOPMENT PROJECTS

Key Teaching Behaviors in Post-Secondary Education: Models of Exemplary Teaching

2 Level I videodiscs with accompanying hypercard stacks and print support 1992-94

Teaching Strategies: a Sampler 1991

Level I videodisc

Do I Ask Effective Questions? or, I Can Hardly Wait to Hear What I'll Ask Next! 1989

Level II videodisc and accompanying print support

Human Development Over the Lifespan 1988

43 multi-media modules

Classroom Management: A Case Study Approach 1987

Level II videodisc with accompanying print support

Classroom Discipline: A Simulation Approach 1984

Level II videodisc with accompanying print support

GRADUATE COURSES

1991-93

ED PSY 510 Advanced Educational Psychology: Learning Theories
Dr. Robert Short

ED ES 541 School Libraries Collection Development
Dr. John Wilbur

ED EL 595 Qualitative Methods in Educational Research: Ethnography
Dr. Patricia Rafferty

ED EL 596 Effective Teaching
Dr. Graham Fishburne

ED EL 697 Elementary Education: Symposium
Dr. Daiyo Sawada

ED EL 691 Exploring Research Paradigms
Dr. Daiyo Sawada & Dr. Janice Blakey

ED EL 692 Exploring Research Paradigms
Dr. Daiyo Sawada & Dr. Janice Blakey

ED EL 696 Collaborative Autobiography as Research Method
Dr. Richard Butt

ED EL 595 Life in Elementary Classrooms
Dr. Jean Clandinin

ED EL 690 Seminar in Teacher Education
Dr. Margaret Haughey

ED EL 696 Research Symposium
Dr. Meyer Horowitz